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COPY

U S LIQUIDS OF LA., L.P.

BOURG LAND TREATMENT FACILITY FOR OIL & GAS EXPLORATION & PRODUCTION WASTES AI#33872

DRAFT AIR EMISSIONS PERMIT #1560-00282-00
DRAFT RENEWAL LPDES PERMIT APPLICATION #LA0068420
OCTOBER 2010

RESPONSE TO LDEQ ENVIRONMENTAL IMPACT QUESTIONNAIRE

Prepared for

LA Department of Environmental Quality
Office of Environmental Services
Permits Division

OCTOBER 26, 2010

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October 26, 2010

HAND DELIVERED

Louisiana Department of Environmental Quality
Office of Environmental Services - Permits Division
PO Box 4313
Baton Rouge, LA 70821

original to TOJ
copy to MC/62/Franklin

Attention: Mr. Eura Dehart/Mr. Todd Franklin

RECEIVED
NOV 03 2010
LA. DEPARTMENT OF ENVIRONMENTAL QUALITY
OFFICE OF ENVIRONMENTAL SERVICES
MINOR INDUSTRIAL PERMITS

RE: **U S Liquids of La., L.P., Bourg Facility, AI#33872**
Draft Air Emissons Permit # 1560-00282-00
Draft LPDES Permit #LA0068420
Response to Environmental Impact Questionnaire

Dear Sirs/Madams:

U S Liquids of La., L.P. (USLL) hereby submits this response to the Environmental Impact Questionnaire requested by you in our meeting of September 16, 2010. The response addresses potential environmental impacts for the draft air and LPDES permits issued to the USLL Bourg Exploration and Production (E&P) Waste Treatment Facility located at 843 Bourg Larose Highway (LA Highway 24) approximately 10 miles east of Houma, Louisiana in Lafourche Parish.

Columbia Consultants has prepared this application at the request of USLL management, who has reviewed and fully concurs with all of the information set forth herein.

USLL appreciates the guidance provided by the Agency in this matter. If you have questions or need additional clarification on the issues in this document, please contact me at the letterhead address or email jtyork@cox.net.

Very truly yours,

Jane D. York, R.E.P.

JDY/enc

OCT 28 2010
LDEQ

Cc: Mr. Wayne Crawley, USLL Houston
Ms. Aimee Guidry, USLL Jennings
Mssrs. Eura Dehart/Todd Franklin, LDEQ (*courtesy email copy*)

U S LIQUIDS OF LA., L.P.

BOURG LAND TREATMENT FACILITY FOR OIL & GAS EXPLORATION & PRODUCTION WASTES AI#33872

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RESPONSE TO LDEQ ENVIRONMENTAL IMPACT QUESTIONAIRE

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U S LIQUIDS OF LA., L.P.
BOURG LAND TREATMENT FACILITY FOR OIL & GAS EXPLORATION & PRODUCTION WASTES AI#33872

DRAFT AIR EMISSIONS PERMIT #1560-00282-00
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RESPONSE TO LDEQ ENVIRONMENTAL IMPACT QUESTIONAIRE

Introduction

This document reviews the potential environmental impact of air emissions and stormwater effluents from the existing U S Liquids of La., L.P. (USLL) Bourg Exploration and Production (E&P) Waste Land Treatment Facility located on the Bourg-Larose Highway (LA Highway 24) near Bourg and Grand Bois, Lafourche Parish, Louisiana. The Bourg Facility has been in operation at this site since 1982 and after several owners was purchased by U S Liquids in 1996. U S Liquids was recently purchased by R360 Environmental Systems, Inc.

The Bourg Facility treats non-hazardous onshore and offshore oil & gas E&P wastes using land treatment technology and deepwell injection. Wastes are delivered to the site by truck or barge and applied to secure leveed treatment cells where the materials are mixed with fresh water and turned by large equipment, facilitating desalinization of the solids, oil recovery and oil degradation. Once the solids material is confirmed and approved to meet Louisiana Department of Natural Resources (LDNR) soils treatment standards for Reuse Material, the materials are removed from the treatment cells and stockpiled for reuse as road bed for onsite levees or other uses. Spent cell waters and salt water are directed to storage tanks or the site Retention Ponds and disposed in one of the saltwater disposal injection wells.

The Bourg Facility has approximately 140 total permitted acres which includes 49.1 acres of active treatment cells, two retention ponds, two washracks, three active reuse stockpiles and one proposed reuse stock pile approved for operations by the LDNR, three saltwater disposal wells (two active), and a barge dock.

The treatment and disposal of non-hazardous E&P wastes is primarily regulated by the LDNR Office of Conservation Statewide Order 29-B. LDNR issues operational permits to those facilities that meet the requirements set forth under Statewide Order 29-B and LAC43:XIX.Chapter 5. As these LDNR regulations are referenced frequently in this document, a copy is provided in the Appendix to this document. If E&P waste treatment facilities also have wastewater or stormwater discharges, they are regulated under the Louisiana Department of Environmental Quality (LDEQ) NPDES and water quality regulations set forth at LAC33:IX. If the facilities have air emissions, they are additionally regulated by LDEQ under LAC33:III. The Bourg Facility has approved LDNR regulatory permits for land treatment

operations and deepwell injection (Site Code 2901 and OOC U038) and a permit from the LDEQ for stormwater discharges (Agency Interest #33872). The Bourg Facility is currently applying for coverage under the LDEQ air emissions regulations. A list of current regulatory permits, authorizations and other approvals is provided in Attachment A to this document.

The Bourg Facility applied for a synthetic minor source air emissions permit in November 2009. After evaluation of the process and the permit requirements, the facility elected to install an electric motor for the second of the saltwater disposal well pumps. This upgrade of equipment significantly reduced the primary source of air emissions at the site. Accordingly, the Bourg Facility filed an Addendum to the November application on May 20, 2010 that included a second electric motor to further reduce emissions. With this additional reduction in emissions, the status of the permit changed to a true minor source permit. In the application, the Facility submitted a response to the Environmental Impact Assessment Questionnaire ("IT" Questions) as they addressed potential air emissions.

Concurrently, the Bourg Facility timely applied for an LPDES renewal permit for stormwater effluents in August 2009. As a minor discharger filing for a renewal LPDES permit, the Facility was not required and did not address the Environmental Impact Assessment Questionnaire (EIAQ) portion of that application. Whereas, LDEQ concurs that the EIAQ response is not required, on September 16, the Agency asked that the Bourg Facility address the questions. Accordingly, this document replaces the previously submitted air emissions responses and combines that document with the response of the potential environmental impact of the stormwater discharges.

In addition to these permits and compliance conditions, the Bourg Facility maintains a number of regulatory plans that describe procedures and protocols to maintain compliance, respond to emergency events, and manage operations. The most comprehensive of these plans is the USLL Environmental Management System document that provides a framework for the corporate-wide control of environmental issues and programs for each site. The Bourg Facility maintains the following regulatory plans.

- ***Environmental Management System*** – a Comprehensive Corporate Plan that provides environmental policy and compliance guidance, summaries of regulatory requirements for each site, and environmental procedures and protocols on a site specific basis. The following documents are part of the EMS Plan for each site.
- ***LPDES Stormwater Pollution Prevention Plan*** – Sets forth compliance procedures and Best Management Practices for the prevention of pollution to stormwater runoff.
- ***Spill Prevention Control and Countermeasure Plan*** -- sets forth structural and non-structural practices for the prevention and control of spills of oil and hazardous materials.
- ***Coast Guard Operations Plan*** – Sets forth procedures for the transfer of oil and oil bearing materials (E&P wastes) over water.

- ***Coast Guard Facility Response Plan*** – Sets forth policies, procedures and responses in the event of a worst case spill of E&P or other oil bearing materials.
- ***DNR Waste Management Operations Plan*** - Describes methods and procedures to comply with E&P waste management requirements of Statewide Order 29-B and LAC43:XIX, Chapter 5.

Status of Air Emissions -- The Bourg Facility is designed to receive E&P wastes from onshore and offshore oil and gas exploration and production companies. The site is regulated primarily by the LDNR Office of Conservation Statewide Order 29-B under authorization NO. 90-10-OWD issued by that Agency in 1982 (See Attachment A, List of Regulatory Authorizations). Wastes received for treatment can include oil and water based drilling fluids, completion fluids, produced water and other typical E&P spent fluids generated by the onshore and offshore oil and gas industry. See Attachment B for a complete list of LDNR wastes that the Bourg Facility is approved to accept. The Bourg Facility is applying for an air emissions permit for site emissions and emissions from the pump engines for the saltwater wells, other small motors and a portable electric generator.

Emissions from the site are limited to those from treatment cells, reuse material stockpiles, offloading, tank emissions, site access traffic/roads, an electric generator, diesel combustion saltwater injection pump engines and small pumps used to transfer water around the site. Itemized below is a summary of proposed emissions (in tons/yr) as addressed in the amended air application submitted May 20, 2010.

Particulate Matter (PM10)	11.93
Sulphur Dioxides (SO2)	4.41
Nitrogen oxides (NOx)	72.62
NOx –Non-methane hydrocarbons (NMHC)	13.52
Carbon monoxide (CO)	25.08
Volatile Organic Compounds (VOC)	34.21

Except for the saltwater and completion fluids, the wastes are placed in one of the active treatment cells. The saltwater and completion fluids are placed in storage tanks, then injected through one of two active saltwater injection wells. Once placed into the treatment cell, the waste is allowed to settle and naturally phase separate. The oil is skimmed from the surface and the water is pumped to the saltwater injection system. Next, the soil washing or desalinization process is initiated in order to remove the soluble salts. The soluble salt and hydrocarbon levels are monitored and treatment is not considered complete until LDNR reviews and approves the treated solids data as compliant with the Reuse Material standards. Since LDNR has jurisdictional authority for E&P waste treatment operations, the Bourg Facility is not required to maintain any LDEQ waste permits to manage E&P wastes.

After the treatment process is complete the waste solids are removed to a Reuse Material Stockpile. The cleared cell can then be used for another treatment cycle. The treated waste solids may be reused for internal roads, levees, fill, or other uses approved by the LDNR.

Status of Stormwater Discharges – The Bourg Facility was issued both a federal NPDES and Louisiana LWDPS permit in the early 80s. These permits were combined when the state of Louisiana gained authority for the LPDES program in 1987 and the discharge permit became LPDES #LA0068420. The permit was for the discharge of sanitary and stormwater effluents only. The Bourg Facility later installed an effluent reduction system on the sanitary plants, and the sanitary discharges were terminated. Discharges today are approximately 2.42 million gallons/day (when discharging) of non-contact stormwater from the areas outside of the treatment cells, maintenance and administrative areas, and small amounts of non-contact stormwater from closed cells and the Reuse Material Stockpiles. Discharges occur only in times of high rainfall when the stormwater pond is full, about six (6) times a year.

The Bourg Facility is protected by a perimeter levee that serves as a boundary between site operations and adjacent properties. All treatment cell waters and process waters are contained within the cell levees, and ultimately sent to a retention pond and deep well injection. Waters that makes contact with the waste in the cells are never discharged from the site. The only water discharged from the site is non-process area stormwater/rainwater from areas outside of the cell levees. Non-contact stormwater is collected in a holding pond, tested by a third party analytical laboratory prior to discharge, and if compliant with the LPDES permit limitations, is discharged to the St. Louis Canal. The stormwater LPDES permit limits are provided in Attachment C. Quarterly Discharge Monitoring Reports confirm that the effluent has been consistently compliant with the LPDES permit limitations for the past five years.

The initial LWDPS permit for the facility was issued to a previous owner sometime in the early 1980s. The permit has been renewed every five years since that time. The last LPDES renewal was in late 2004, and conditions have not changed at the site since issuance of the current permit except for the ongoing efforts to close Cells 2, 11 and 12. Cell 2 has a vegetative cover and significant progress has been made on the closure of Cells 11 and 12. Also a new injection well was drilled in 2007. Conditions set forth in the draft 2010 LPDES renewed permit are equivalent to those in the current 2004 permit. The 2004 draft permit was issued on October 08, 2004 and the comment period extended until November 16, 2004 (See Attachment C). No public comments were received by the LDEQ during the Public Notice period on the draft 2004 LPDES permit. This current permit is essentially equivalent to the draft permit under consideration.

This paper assesses the potential environmental impact of the stormwater effluents and the air emissions from the Bourg Facility, addresses the potential environmental costs in comparison to the long term social and economic benefits of the project, and presents a brief discussion of alternative processes and locations.

ENVIRONMENTAL IMPACT QUESTION A: What are the potential and real adverse environmental effects of the proposed facility and have the impacts been avoided to the maximum extent possible?

The Bourg Facility operation is an existing and not a proposed facility. Oilfield wastes land treatment operations have occurred at the site since inception in 1982.

Potential environmental impacts from the air emissions are limited primarily to emissions from the treatment cells, reuse stockpiles, site roads and emissions from the saltwater injection well pump engines and other small equipment.

VOC emissions from the treatment cells are limited and less than 35 tpy. In addition, a study of potential health risks from E&P wastes was conducted over a six year period ranging from 1995 to 2001. The primary contaminant of concern during the study was benzene. The Bourg Facility was part of this study. Samples and data were collected by several agencies including the Environmental Protection Agency (EPA), Louisiana Department of Environmental Quality (LDEQ), and Louisiana State University. Results of the study showed that benzene emission rates from active cells, air samples collected at the facility boundary, short term air samples collected on-site, and predictions of offsite benzene concentration based on models (using site specific data) all indicated low benzene concentrations both on-site and offsite. Additionally, actual ambient benzene concentrations collected at the facility boundary measured over a 3.5 year period at the Bourg Facility were lower or similar to ambient benzene concentrations measured by LDEQ at locations around the state.

Potential environmental impacts on the stormwater effluents are mitigated by the perimeter levee, separation of contaminated from non-contaminated waters, containment and injection of process wastewaters, use of the stormwater holding pond, re-vegetation of closed cells, standard operations procedures, best management practices and structural and non-structural controls. Structural controls include perimeter levees, cell levees, tanks dikes/containment and concrete curbing around injection well engines, washracks and other critical areas. Non-structural controls include monthly formal site inspections, preventive maintenance of levees and equipment, and employee training.

The environmental impact of the non-process stormwater effluents at the Bourg Facility is minimal. The primary potential adverse environmental effects include 1) impacts to the water quality of the St. Louis Canal through non-compliant discharges, and 2) potential spills from the Barge Offloading/Dock area. The Bourg Facility has implemented a number of practices to prevent and avoid these impacts that are successful in mitigating the potential environmental effects of these activities. Specifically,

- Water quality impact to St. Louis Canal is mitigated by collection of non-process area stormwater in a holding pond and testing of the effluent by a third party prior to discharge.

- Any spills at the dock during offloading are managed in accordance with the site emergency procedures, SPCC and US Coast Guard requirements that include booms or other containment, regulatory notifications, and corrective actions.
- USLL has implemented a corporate Environmental Management Plan (EMS) that includes detailed and specific actions to be taken in response to spills and releases.
- Stormwater runoff from non-process areas is limited to that from access roads, the exterior of cell levees, closed treatment cells and grassed areas of the site.
- Truck offloading occurs within the treatment cell levees.
- Barge offloading operations occur within the curbed dock area under US Coast Guard protocols.
- The facility mans two washracks for the cleaning of equipment prior to leaving the site. Washwaters are contained and considered process waters. The effluents are directed to the Retention Pond for injection. There is no off-site discharge of vehicle/equipment washwaters.
- Reuse Material Stockpiles are surrounded by ring levees that control the surface runoff water from the stockpiles thus keeping this runoff water on the property for management. The treatment cells have natural clay liners and the levees are constructed in accordance with strict LDNR requirements.
- The perimeter levees are constructed to meet DNR requirements to a minimum of one foot above the 100 year flood plain level.
- The facility perimeter monitoring system includes a network of monitoring wells and the groundwater is sampled and tested on a quarterly basis.

As there have been no non-compliant stormwater effluents and no spills greater than the reportable quantity (RQ) since mid 2005, these mitigative measures are highly successful.

ENVIRONMENTAL IMPACT QUESTION B: Provide a cost-benefit analysis that balances the environmental impact costs of the proposed treatment facility against the social and economic benefits of the facility.

The Bourg Facility operation is an existing and not a proposed facility. The environmental impacts of the air emissions are limited to site emissions from cells and roads and emissions from the various pump engines and small motors used at the site. The environmental impacts of the stormwater effluent discharges are negligible, limited to potential impact to the water quality of the St. Louis Canal from stormwater discharges and occasional spills, and controlled by highly successful mitigative protocols.

See Tables 1 and 2 for a summary of environmental impact costs versus benefits of the Bourg Facility.

Environmental Impact Costs—Air Emissions: Historically, USLL has utilized diesel engines to power the injection well pumps. However, in an effort to minimize adverse environmental

effects, USLL began an emissions reduction initiative in 2009 by replacing one of the diesel engines with an electric motor. The Bourg Facility is currently replacing a second injection well diesel engine in conjunction with this permit application. The impact of replacement of the second diesel engine with an electric driven motor reduced the potential NOx emissions from 92 to 73 tons/year, a further emission reduction of 21% in NOx emissions. The capital cost for the diesel engine replacement was $143,000.

Environmental Impact Costs –Stormwater Discharges: LDEQ has developed the LPDES permit limits at highly conservative compliance levels that afford protection to the water quality of the receiving stream. The Bourg Facility has consistently demonstrated through compliance testing of each stormwater discharge that the effluent does not impact the water quality of the St. Louis Canal. As the effluent is consistently compliant, environmental impact costs are negligible and therefore do not lend themselves to feasible quantification. USLL pays over $100,000/yr to a commercial laboratory for sampling and laboratory services. The Bourg Facility has not experienced a reportable spill (>42 gallons or 1 bbl of E&P waste) in the dock area during the term of the existing permit. Again, environmental impact costs are negligible. An occasional small spill less than the reportable quantity may occur, and is managed in accordance with US Coast Guard and LDNR regulations. Any impact to water quality of the St. Louis Canal is minimal in these instances.

On the other hand, the Bourg Facility expends considerable monies in compliance costs to maintain its environmental programs. These compliance costs are projected to be approximately $200,000 for 2010, include professional fees for consultants/contractors, permit fees, penalties, and allocated salaries and benefits of the company environmental professionals.

Potential Social Benefits – Social benefits associated with the Bourg Land Treatment Facility include the following.

- The use of The Bourg Facility treatment process provides ultimate protection of the environment and populace from the impact of uncontrolled waste disposal.
- The Bourg facility provides a valuable service to the oil & gas industry by providing a secure location and process to treat and recycle drilling wastes in a controlled environment.
- A number of E&P wells have been drilled in the Bourg/Grand Bois area since 1997, and wastes from these wells have been delivered to USLL for treatment or disposal. The Bourg Facility has accepted almost 94,000 bbls of waste from the Lake Long Field since Year 2000. A number of Grand Bois residents have royalty or other interests in this field. As the Bourg Facility is near to the field, the reduced cost to transport wastes to the facility is a considerable benefit to those operators who profit and pay landowner royalties from interests in the Lake Long Field (See Attachment D and Table 2).
- If Lake Long Field wastes were not hauled to The Bourg Facility, they would be hauled to Morgan City, about 50 miles further (See Attachment D). Because of

the shorter distance to haul wastes from the Lake Long Field, wastes are on the local/state highways for shorter periods, thereby reducing exposure of roadway incidents on parish and state roads.

- The Bourg Facility process operations and compliance programs meets the EPA/LDEQ initiatives of pollution prevention, waste minimization and recycling.

Potential Economic Benefits – Economic benefits generated by the The Bourg Facility operation return approximately $4MM back to the local/state community (See Table 1.) Pertinent comments on this economic stimulus are as follows:

- The Bourg Facility provides an average of 20 permanent jobs. USLL hires local people for work in its operations and supports local contractors and businesses.
- The Bourg Facility provides a necessary service to the Oil & Gas industry, thereby directing a portion of a considerable revenue stream to the Parish and local area. The Bourg Facility primarily uses local vendors for supplies and services. The other services not purchased locally (i.e., some contract mechanics and other specialty services), are obtained from state-wide vendors. Thus, the facility provides a needed service in LA and uses LA vendors.
- The Bourg Facility provides services to the Oil & Gas industry at reasonable costs. Disposal fees are competitive depending on levels of contaminents and soilds content in waste waters. Lafourche Parish benefits from property and business taxes generated by the facility (See Table 1).
- The area benefits from multiplier effects of payroll, taxes and other spending by the Bourg Facility. Using a traditional multiplier of 7 times payroll, the Bourg Facility payroll/benefits provide an estimated stimulus of $10MM a year through the local and parish economy.

In summary, environmental impacts costs for the Bourg Facility operations are negligible. Air emissions are substantially reduced with the replacement of two diesel pump engines with electric motors. The Facility has been compliant with the LPDES permit for the past five years. Environmental compliance costs to the Bourg Facility for 2010 are projected to be about $200,000, and capital costs $143,000. Social benefits including providing a valuable cost effective service to 1) those residents of the Grand Bois community who have interests in nearby oil fields, and 2) the Louisiana oil & gas industry. These benefits are provided while meeting the EPA/LDEQ goals of pollution prevention, waste minimization and recycling. These impacts are enhanced by favorable economic benefits to the Parish that are documented to be over $4 MM/yr, or 12.6 times the compliance and capital costs for 2010.

ENVIRONMENTAL IMPACT QUESTION C: Are there possible alternative projects that would offer more protection to the environment than the proposed process without unduly curtailing non-environmental benefits?

The Bourg Facility operation is an existing and not a proposed facility. Accordingly, Question C is not directly applicable, as the use of an alternative process at this site is neither practical nor

feasible. However, for the completeness of the record, we provide the following response to this question.

This Facility has been in existence since 1982. It would be inefficient and uneconomical to consider alternative methods of treatment at this time. USLL has implemented projects which offer environmental protection, such as the replacement of diesel engines with electric motors, as previously discussed. USLL has also increased salvage oil recovery operations which removes more oil from the treatment cells.

The Bourg Facility Process has been used for the treatment of oilfield wastes for many years. There are other processes in use for treatment/disposal of E&P wastes, but each of these have their own potential environmental impacts. The alternative processes below are addressed in LAC43:XIX.547.

- ***Phase Separation*** - Chemical separation and treatment of oil & gas waste stream – Discharge of treated process waters and disposal of solids to USLL or similar disposal sites. Environmental impacts are greater than those of the Bourg Facility stormwater as process water is discharged with higher permit limitations than those limits assigned to stormwaters considered non-contaminated. Solids must then still be disposed at either LDNR permitted or LDEQ permitted solid waste facilities. Mechanical treatment is one method of phase separation treatment and is typically used at the well sites. It has some commercial use, but is generally not cost effective. This equipment also typically uses flocculants or other chemicals to enhance treatment.
- ***Thermal Desorption*** –vaporization of organic constituents at high temperatures. Environmental impacts include considerable air emissions and disposal of ash residues. Ash residuals may be characteristically hazardous and must be disposed appropriately.
- ***Cavern Disposal*** – Disposal of E&P wastes in secure mined salt caverns. These locations are site specific as they must be over a salt cavern that can be developed for waste disposal. The majority of salt caverns are in use for storage of hydrocarbons already extracted. Environmental impacts can include structural and subsidence issues as these facilities are located in coastal areas and sometimes over coastal waters.
- ***Incineration*** – Burning of E&P wastes at high temperatures. This process can result in considerable air emissions, is cost prohibitive and residual ash may be characteristically hazardous and expensive to dispose.
- ***Solidification*** – The conversion of liquid or semi-liquid E&P wastes to a solid for landfill disposal. Environmental impacts are those of a traditional landfill that would include usage of limited landfill capacity, potential migration of E&P waste contaminates (particularly chlorides) to the groundwater. E&P spent drilling muds have a very high water content which is problematic for landfills. Thus, additional field separation activities are required and this water still requires disposal.
- ***Stabilization*** – Conversion of liquid or semi-liquid E&P wastes by chemical precipitation or other means. Again, environmental impacts are those of a traditional landfill. See comments for solidification.

- ***Deep well injection*** – The disposal through deep wells to secure underlying soils strata well below underground sources of drinking water. This is the preferred method of disposal for E&P generated liquid waste and the most cost effective means of disposal.
- ***Land Treatment*** – The placement of E&P wastes into secure leveed cells to allow for accelerated attenuation of wastes. This is the preferred method of treatment for E&P wastes as environmental impacts are less than other processes described. Through this process, E&P waste solids are treated and recycled. The treated solids can be reused for internal roads, levees, fill, or other regulatory approved uses. The existing facility operates using well established procedures and guidelines for the handling and treatment of E&P wastes.

In summary, an evaluation of the environmental impacts of proven alternative treatment technologies indicates that impacts of the Bourg Facility process, air emissions and stormwater discharges are less than those of other processes. As such, there are no alternative technologies which would offer more protection to the environment than the existing facility without unduly curtailing non-environmental benefits.

ENVIRONMENTAL IMPACT QUESTION D: Are there alternative sites that would offer more protection to the environment than the proposed facility site without unduly curtailing non-environmental benefits?

The Bourg Facility operation is an existing and not a proposed facility. Accordingly, Question D is not directly applicable, as moving the Bourg Facility operation to an alternative site is not an option. However, for the completeness of the record, we provide the following response to this question.

The Bourg Facility has been operating at this site since 1982. The proximity of the state highway and Intracoastal Canal system make this a very suitable location. There are no plans to try and relocate this business. This site is not located in an estuary or critical habitat area. The south part of the facility is in the Coastal Zone Management Area and USLL has mitigated some areas for wetlands. These authorizations are provided in the approved List of Regulatory Authorizations, Attachment A. The Bourg Facility is surrounded by a flood control levee which is one foot higher than the FEMA Advisory Base Flood Elevation. There are extended areas of wooded land and wooded marsh land to the south, southeast and southwest of the Bourg Facility which provides a significant protective barrier against storm surges from hurricanes. During Hurricanes Katrina, Rita and Ike, the high water mark on the southern levees was scarcely one foot above natural grade. Therefore, there are no alternative sites in southern LA which could offer more protection to the environment than the Bourg Facility while providing the location and access for the E&P industry for this needed service.

Potential sites for the location of E&P waste treatment facilities are limited because of strict LDNR location requirements. LDNR regulations at LAC43:IXI.507 establish strict criteria that

require the permittees to document certain site placement, geologic and hydrogeologic conditions such as buffer zones, adequate clay confining layers, and adequate thickness and areal extent of injection zones. These conditions are documented and the Bourg facility met these restrictions prior to approval of facility construction.

The Bourg Facility meets all of the location requirements of the LDNR regulations. The site is also easily accessible for the delivery of E&P wastes by various transports, as operations are strategically located near adequate highways and waterways. Access to the source material is provided through the USLL Transfer Stations located throughout the Gulf Coast via the Intracoastal Canal. The current location is key to the receipt of deliveries by truck or barge and provides secure offloading protected from heavy inland waterway traffic.

Air Emissions -- Lafourche Parish is currently attainment for all criteria pollutant National Ambient Air Quality Standards (NAAQS).

Stormwater Effluents -- The site area collecting non-process area stormwater is not located in the Coastal Zone (the Coastal Zone Boundary is LA Highway 24). Outfall 002 falls into the St. Louis Canal, about 0.5 miles to the east of the Bourg Facility slip, and the outfall is 0.75 miles east of the closest point to the Grand Bois community.

ENVIRONMENTAL IMPACT QUESTION E: Are there any mitigating measures that would offer more protection to the environment than the facility as proposed without unduly curtailing non-environmental benefits?

Air Emissions -- USLL has a strategic business plan to address management of oil and gas exploration and production waste drilling fluids and material. This plan includes the location of E&P waste treatment facilities to most economically service the operations in the industry. The existing facility in near Bourg is a strategic location because of the large amount of activity centered in the area. This location was chosen to service the immediate region operations due to the accessibility of the dock space, highway transportation and the amount of oil and gas activities in the immediate vicinity.

Mitigating measures that would offer more protection could include replacement of the third diesel pump engine with an electric motor. However, this is not a feasible option as all three engines would be dependent on a single energy source. The facility would be vulnerable to electric outages during emergency situations (i.e., hurricanes or other severe storms).

As stated above, USLL has undertaken an initiative to reduce the amount of emissions to the environment by replacing two of the facility's diesel combustion injection well engines with electrically driven motors. In addition, USLL utilizes dust suppression techniques (i.e. wetting operations via tank truck) to control particulate emissions from facility roads and stockpiles. Therefore, there are no further mitigating measures which could offer more protection to the environment without unduly curtailing non-environmental benefits.

Stormwater Effluents -- The Bourg Facility has implemented a number of mitigative measures that afford considerable protection to the environment. This statement is confirmed by 1) the compliant status of the stormwater effluents for the past five years, and 2) the lack of reportable spill incidents to the St. Louis Canal during the same period. For the sake of completeness of the public record, there is one additional mitigative measure that should be considered.

The sole other mitigative measure would be no discharge of stormwater. This is not a necessary or feasible option for the following reasons.

- The containment and injection of non-contaminated stormwater would take up valuable injection well capacity and would reduce the volume of contaminated cell waters that could be disposed.
- A "no discharge of stormwater" criteria would provide no additional protection to the water quality of the St Louis Canal. The effluents have not exceeded the highly protective LDEQ discharge limitations over the past five years.

Based on these factors and other information presented in this application, there are no additional mitigating controls that would offer more protection to the environment than the mitigative measures that the Bourg Facility has already implemented.

TABLES

1. ENVIRONMENTAL COSTS VS BENEFITS ACCRUED TO THE COMMUNITY

2. COMPARISON OF TRANSPORT COSTS TO BOURG OR MORGAN CITY FROM LAKE LONG FIELD

US Liquids of La., L.P., Bourg Facility **TABLE 1.**

Environmental Costs/Benefits Accrued to Community

2010 (Projected)

Environmental Compliance Costs to Bourg Facility	
Closure Bond	$ 662
Accrued Closure Costs	$ 8,514
Professional fees	$ 23,543
Laboratory Analyses	$ 101,345
Penalties	$ 2,500
Permit Fees	$ 22,093
Allocated Salaries of (2) Env Professionals	$ 33,000
Environmental Capital Costs for Bourg Facility	
Replace diesel pump engine with electric motor	$ 143,000
Total Env Cost $$	**$ 334,657**

Economic Benefits Accrued to State, Local Community	
Payroll/Benefits	$ 1,403,873
Local vendors, suppliers	$ 902,000
Outside Contractors, Local	$ 80,849
Other State-wide contractors, suppliers	$ 1,216,808
Utilities, telephones	$ 194,047
Env Penalties	$ 2,500
Permit Fees	$ 22,093
Property Taxes	$ 40,848
Operations License	$ 3,000
Lease, easement, royalties	$ 276,061
Donations to Community	$ 6,000
Larose/Cutoff Upper Elementary	
Larose/Cutoff Middle School	
Member/ LaFourche Chamber of Commerce	
Transport Savings accrued to Lake Long royalty/leaseholders (1)	$ 74,770
Total Economic Benefits:	**$ 4,222,849**

(1) From Table 2, 2010 only

Employee/Salary Benefits to Community	
20 average employees	
3 Management @ average salary $64K	$ 192,000
17 operators @ average salary $52K	$ 884,000

US Liquids of La., L.P., Bourg Facility
Comparison of Transport Costs to Bourg and Morgan City
from Lake Long Field
2000 through 2010

TABLE 2.

YEAR	VOLUME BBLS	SALTWATER bbls (1)	OTHER bbls (2)	Disposal Costs ($$)	# of Loads (3)	Transport* Costs ($$) (4)	Transport* Costs ($$)(5)	Savings ($$) (6)
2000	429		429	$ 4,290	5.72	1716	286	1430
2001	7666		7666	$ 76,660	102.21	30664	5111	25553
2002	3343		3343	$ 33,430	44.57	13372	2229	11143
2003	372		372	$ 3,720	4.96	1488	248	1240
2004	323		323	$ 3,230	4.31	1292	215	1077
2005	3063	360	2703	$ 27,750	40.84	12252	2042	10210
2006	15957		15957	$ 159,570	212.76	63828	10638	53190
2007	40116	40	40076	$ 400,840	534.88	160464	26744	133720
2008	26584	9405	17179	$ 190,600	354.45	106336	17723	88613
2009	12219	7115	5104	$ 65,270	162.92	48876	8146	40730
2010	22431	21630	801	$ 51,270	299.08	89724	14954	74770
Total bbls:	132503	38550	93953		1767			
Total $$:		**$ 77,100**	**$ 939,530**	**$ 1,016,630**		**$ 530,012**	**$ 88,336**	**$ 441,677**

(1) @ $2 bbl (Average cost/bbl over 10 yrs)
(2) @ $10 bbl (Average cost/bbl over 10 yrs)
(3) @75 bbls/load (average truck capacity)
(4) Transport costs to haul to Morgan City @$300/load
(5) Transport costs to haul to Bourg @ $50/load
(6) @ $250/load hauling to Bourg rather than Morgan City
** Hauling costs are $2.50/mile for round trip from Lake Long Field to disposal site.*

ATTACHMENT A

COMPREHENSIVE LIST OF USLL

BOURG REGULATORY AUTHORIZATIONS

USL RECORDS MATRIX
Document Number EMS 6-002

Authority:	Environmental Management Team U S Liquids of La, L.P.	Custodian:	Site Manager
Scope:	U S Liquids of La Operations		
Issue Date:	06/10/03		
Revision Date:	07.01.2010	Next Review:	1st Quarter 2012

1.0 Purpose/Scope

The purpose of this procedure is to list the environmental records that each USLLL treatment/disposal facility and transfer station maintains. Included in these records are permits, registrations, regulatory plans and records.

2.0 Definitions

There are no definitions unique to this procedure.

3.0 Key Responsibilities

VP Regulatory Affairs – Maintain and monitor compliance with the Environmental Records List.

Facility Manager – Maintains a copy of all the Facility Environmental Records in accordance with EMS 6-001.

4.0 Procedure

An Environmental Records List was developed for each USLLLfacility, which includes both the Environmental Records. The Facility Manager maintains a copy of all Environmental Records as outlined in EMS 6-001 and -002.

5.0 Key Documents/Tools/References

- Records Management Procedure, EMS 6-001
- Facility Records List, EMS 6-002

6.0 Revision Log

Revision Date	Authority	Custodian	Revision Details
06.10.03	J. Brazzel	W. Crawley	Initial version
09.01.03	J. Brazzel	W. Crawley	Edited name to reflect change in Limited Partners
03.01.05		W. Crawley	Amended of renewal of discharge permit

BOURG FACILITY

Permits	Agency / Title	Date Issued	Expiration Date
Operating Permit	DNR - Order No. 91-10 OWD Land treatment permit Saltwater Injection Wells	7/24/2002	NA
Operating Permit	DNR – 5 Year Review	12/10/2007	12/09/2012
Injection Well	DNR – Templet #1 – SN: 972258	7/24/2002	NA
Injection Well	DNR – Templet #3 – SN: 972254	7/24/2002	NA
Injection Well	DNR – Templet #4 – SN: 973455		NA
Discharge Permit	DEQ Surface Water Discharge - LA0068420	02/01/2005	01/31/10
Air Emissions	DEQ Minor Permit #		
Sanitary	Lafourche Parish		
Coastal Use	DNR - P860825 - Construct Cells 13-14		
Coastal Use	DNR - P860841 – March Management	03.30.95	NA
Coastal Use	DNR - P870387 – Construct Cells 11-18		
Coastal Use	DNR - P900455 – Cell 19 (Stockpile Area #2)		
Coastal Use	DNR - P20080415 – Cell 11 Earthen Berm		
404 Permit	COE – SE(LTMA) 1094 - Backfill Bayou Blue		
404 Permit	COE - SE(LTMA) 1094 – Barge Dock Work		
404 Permit	COE – MVN-2008-01529-CU – Stockpile Expansion	12/31/2008	12/31/2013
Site ID Nos.	**Title**	**Date Issued**	**Expiration Date**
DNR	Site Code 2901; OOC # U038		NA
EPA/ DEQ	Hazardous Waste Generator #LAD985220920		NA
DEQ	Solid Waste ID# G-057-3374		NA
DEQ	Agency Interest # 33872		NA
State Police	Facility ID # 22803		NA
License			
DEQ-NORM	LA-U025-N01	~1994	NA
Plans	**Title**	**Date Issued**	**Review Date**
Operations	Waste Management & Operations Plan	11/29/2008	As Necessary
Operations	Coast Guard Operations Plan	05.13.02	As Necessary
Spill Response	Coast Guard Facility Response Plan	9/12/2006	9/11/2011
Spill Response	SPCC Plan	12/2008	12/2/2011
Closure	Closure Plan (submitted w/ permit application)	1982	NA
Closure	Closure Bond – (submitted Feb. 1 each year)	2/1	Annual

Reports	Title	Date	Review Date
DNR - Qrtly	Environmental Monitoring Data	30 days after Qrt	
DNR - Monthly	UIC-21 Monthly Injection Well Report	15th of each Mo.	
DNR - Annual	UIC-10 Annual Injection Well Report	May of each Yr	
DNR - Monthly	UIC -19 Monthly Manifest Report	15th of each Mo.	
DNR - Monthly	Production Audit Report – Salvage Oil	15th of each Mo.	
DEQ - Monthly	Discharge Monitoring Reports	28th of Month after each Qrt	
DEQ - Annual	Hazardous Waste Generator Report - CESQG	No annual report	
DEQ - Annual	Solid Waste Generator Report	Aug. 1 for preceding year	
State Police	Annual Tier II Report	March 1 for preceding year	
Records	**Title**	**Date Issued**	**Review Date**
Manifests	Incoming waste manifest	w/ each load	NA
Inspections	Regulatory inspection reports or records		
Daily Log	Injection Well Daily Log		
Training Records	Annual		
Waste Records	Used Oil Records	w/ each shipment	
Salvage Oil	Salvage Oil Records	w/ each shipment	
Calibration Data	Calibration for pH, EC, Meters, NORM calibration forms	As per WMOP	
Internal Inspections	Saltwater Storage Tanks	Quarterly	
Internal Inspections	Facility Inspections	Quarterly	
Health & Safety	MSDS Sheets	NA	

NA – Not applicable

ATTACHMENT B

LDNR APPROVED WASTES AND

BOURG AUTHORIZIED LIST

WELCOME

LOUISIANA OFFICE OF CONSERVATION

James H. Welsh
Commissioner of Conservation

Environmental Division
Exploration & Production Waste Management Section

Exploration & Production Waste

Contact Information

Contact Us
questions & comments

Email the Office of Conservation

Exploration & Production waste is defined as drilling wastes, salt water, and other wastes associated with the exploration, development, or production of crude oil or natural gas wells and which is not regulated by the provisions of, and, therefore, exempt from the Louisiana Hazardous Waste Regulations and the Federal Resource Conservation and Recovery Act, as amended. E&P Wastes include, but are not limited to the following:

E&P Waste Description

01 Salt water (produced brine or produced water), except for salt water whose intended and actual use is in drilling, workover or completion fluids or in enhanced mineral recovery operations, process fluids generated by approved salvage oil operators who only receive oil (BS&W) from oil and gas leases, and nonhazardous natural gas plant processing waste fluid which is or may be commingled with produced formation water.

02 Oil-base drilling wastes (mud, fluids and cuttings)

03 Water-base drilling wastes (mud, fluids and cuttings)

04 Completion, workover and stimulation fluids

05 Production pit sludges

06 Storage tank sludge from production

operations, onsite and commercial saltwater disposal facilities, salvage oil facilities (that only receive waste oil [BS&W] from oil and gas leases), and sludges generated by service company and commercial facility or transfer station wash water systems

07 Produced oily sands and solids

08 Produced formation fresh water

09 Rainwater from firewalls, ring levees and pits at drilling and production facilities

10 Washout water and residual solids generated from the cleaning of containers that transport E&P Waste and are not contaminated by hazardous waste or material: washout water and solids (E&P Waste Type 10) is or may be generated at a commercial facility or transfer station by the cleaning of a container holding a residual amount of E&P Waste

11 Washout pit water and residual solids from oilfield related carriers and service companies that are not permitted to haul hazardous waste or material

12 Nonhazardous natural gas plant processing waste solids.

13 (Reserved)

14 Pipeline test water which does not meet discharge limitations established by the appropriate state agency, or pipeline pigging waste, i.e., waste fluids/solids generated from the cleaning of a pipeline

15 E&P Wastes that are transported from permitted commercial facilities and transfer stations to permitted commercial treatment and disposal facilities, except those E&P Wastes defined as Waste Types 01 and 06

16 Crude oil spill clean-up waste

50 Salvageable hydrocarbons bound for permitted salvage oil operators

99 Other E&P Waste not described above. A description of these wastes and written

approval from the Office of Conservation is required and must be attached to the manifest prior to transport.

617 North Third Street · P.O. Box 94275 · Baton Rouge Louisiana 70804-9275 · Voice 225.342.5515 Fax 225.242.3441

Revised on Thursday April 22 2010 by the **DNR Web Team**

:N46830 - Commercial Facility Report

e Id : 2919 **Name : USL - PORT FOURCHON 2** **Type : T**

umercial Facilities
osal Operator ID : U038 Disposal Operator Name : U S LIQUIDS OF LA., L.P. Status Code : 5 Description : OPEN

ish Code : 29 Name : LAFOURCHE Contact Name : KEVIN TRAHAN Phone : (337)824-3194
ess1 : 153 17TH STREET Address2 :
/ : PORT FOURCHON State Code : LA Zip Code : 70357-0000

er Discharge Permit : NONE

Waste Type Code: 01 02 03 04 05 06 07 08 09 10 11 12 14 16 99
isposal Technique Code: 9

e Id : 3001 **Name : LASALLE/GRANT PARISH LANDFILL** **Type : DE**

umercial Facilities
osal Operator ID : NP0006 Disposal Operator Name : LASALLE/GRANT PARISH LANDFILL Status Code : 5 Description : OPEN

ish Code : 30 Name : LASALLE Contact Name : DELANEY LEWIS Phone : (318)992-5571
ess1 : 255 LANDFILL RD. Address2 :
/ : OLLA State Code : LA Zip Code : 71465-0000

er Discharge Permit :

Waste Type Code: 02 03 16
isposal Technique Code: 22

e Id : 3701 **Name : CWI - WHITE OAKS LANDFILL** **Type : DE**

umercial Facilities
osal Operator ID : NP0010 Disposal Operator Name : WCI - WHITE OAKS LANDFILL, INC. Status Code : 5 Description : OPEN

ish Code : 37 Name : OUACHITA Contact Name : DANNY MASSEY Phone : (318)343-2026
ess1 : 588 MEADOWLARK DR Address2 :
/ : MONROE State Code : LA Zip Code : 71203-6915

er Discharge Permit :

Waste Type Code: 02 03 16 15
isposal Technique Code: 22

ATTACHMENT C

CURRENT (2004) LPDES PERMIT AND

STORMWATER DISCHARGE LIMITS

PERMIT NUMBER: LA0068420
AI NO: AI 33872
PER20040001

OFFICE OF ENVIRONMENTAL SERVICES

Water Discharge Permit

Pursuant to the Clean Water Act, as amended (33 U.S.C. 1251 et seq.), and the Louisiana Environmental Quality Act, as amended (La. R. S. 30:2001 et seq.), rules and regulations effective or promulgated under the authority of said Acts, and in reliance on statements and representations heretofore made in the application, a Louisiana Pollutant Discharge Elimination System permit is issued authorizing

US Liquids of La, L.P.
Bourg Facility
P.O. Box 1467
Jennings, LA 70546

Type Facility: existing commercial waste treatment and disposal facility for exploration and production wastes serving oil and gas companies

Location: 843 Bourg Larose Hwy. in Jennings, Lafourche Parish

Receiving Waters: St. Louis Canal

to discharge in accordance with effluent limitations, monitoring requirements, and other conditions set forth in Parts I, II, and III attached hereto.

This permit shall become effective on February 1, 2005

This permit and the authorization to discharge shall expire five (5) years from the effective date of the permit.

Issued on December 17, 2004

Karen K. Gautreaux
Deputy Secretary

GALVEZ BUILDING - 602 N. FIFTH STREET • P.O. BOX 4313 • BATON ROUGE, LA 70821-4313 • PHONE (225) 219-3181

FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning the effective date of the permit and lasting through the expiration date of the permit the permittee is authorized to discharge from:

Outfall 002, located in the northeast corner of the property at Lat. 29°33'07", Long. 90°31'09", non-contact stormwater from areas outside the land treatment cells (**estimated flow** is 1.12 MGD).

Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	Storet Code	Discharge Limitations (lbs/day) Monthly Avg.	Discharge Limitations other units (specify) Monthly Avg.	Discharge Limitations other units (specify) Daily Max.	Monitoring Requirements Measurement Frequency*	Monitoring Requirements Sample Type
Flow-MGD	50050	—	Report	Report	1/day	Measure
COD	70027	—	—	100 mg/l	1/day	Grab
TSS	00530	—	—	60 mg/l	1/week	Grab
Oil&grease	00552	—	—	15 mg/l	1/week	Grab
TDS	03613	—	—	Report mg/l	1/week	Grab
Chlorides	01002	—	—	500 mg/l	1/week	Grab
Sulfates	00945	—	—	Report mg/l	1/week	Grab
Total phenol	34694	—	—	0.026 mg/l	1/month	Grab
Benzene	34030	—	—	0.05236 mg/l	1/month	Grab
Ethylbenzene	34071	—	—	0.108 mg/l	1/month	Grab
Toluene	34031	—	—	0.08 mg/l	1/month	Grab
Antimony	01097	—	—	0.549 mg/l	1/month	Grab
Arsenic	01002	—	—	0.137 mg/l	1/month	Grab
Beryllium	01012	—	—	0.275 mg/l	1/month	Grab
Cadmium	01012	—	—	0.2439 mg/l	1/month	Grab
Hexavalent Chromium	01032	—	—	0.0796 mg/l	1/month	Grab
Total Chromium	01034	—	—	0.343 mg/l	1/month	Grab
Copper	01042	—	—	0.5712 mg/l	1/month	Grab
Lead	01051	—	—	0.275 mg/l	1/month	Grab
Mercury	71900	—	—	0.00083 mg/l	1/month	Grab
Nickel	01067	—	—	0.549 mg/l	1/month	Grab
Selenium	01147	—	—	0.11 mg/l	1/month	Grab
Silver	01077	—	—	0.11 mg/l	1/month	Grab
Thallium	01059	—	—	0.549 mg/l	1/month	Grab
Zinc	01092	—	—	0.686 mg/l	1/month	Grab
pH (Standard Units)**	00400	—	—	—	1/day	Grab

FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

- When discharging.

** The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units. The permittee shall report on the Discharge Monitoring Reports both the minimum and maximum instantaneous pH values measured.

There shall be no discharge of floating solids or visible foam in other than trace amounts. No evidence or presence of a sheen shall be observed in the effluent discharge.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location:

Outfall 002, at the point of discharge from the last treatment unit prior to mixing with other waters.

PART II

OTHER REQUIREMENTS

In addition to the standard conditions required in all permits and listed in Part III, the office has established the following additional requirements in accordance with the Louisiana Water Quality Regulations.

SECTION A. GENERAL STATEMENTS

1. Please be aware that the Department will be conducting a TMDL in the Terrebonne Basin scheduled for completion in 2007. The Department of Environmental Quality reserves the right to impose more stringent discharge limitations and/or additional restrictions as a result of the TMDL. Therefore, prior to upgrading or expanding this facility, the permittee should contact the Department to determine the status of the work being done to establish future effluent limitations and additional permit conditions.

2. This permit does not in any way authorize the permittee to discharge a pollutant not listed or quantified in the application or limited or monitored for in the permit.

3. Authorization to discharge pursuant to the conditions of this permit does not relieve the permittee of any liability for damages to state waters or private property. For discharges to private land, this permit does not relieve the permittee from obtaining proper approval from the landowner for appropriate easements and rights of way.

4. For definitions of monitoring and sampling terminology see Part III, Section F.

5. 24-hour Oral Reporting: Daily Maximum Limitation Violations

   Under the provisions of Part III Section D.6.e.(3) of this permit, violations of daily maximum limitations for the following pollutants shall be reported orally to the Office of Environmental Compliance within 24 hours from the time the permittee became aware of the violation followed by a written report in five days.

   Pollutants: None

6. The permittee shall achieve compliance with the effluent limitations and monitoring requirements specified for discharges in accordance with the following schedule:

   EFFECTIVE DATE OF THE PERMIT

7. Monitoring results must be reported on a Discharge Monitoring Report (DMR) form (EPA No. 3320-1 or an approved substitute). All monitoring reports must be retained for a period of at least three (3) years from the date of the sample measurement. The permittee shall make available to this Department, upon request, copies of all monitoring data required by this permit.

   If there is a no discharge event at any of the monitored outfall(s) during the sampling period, place an "X" in the NO DISCHARGE box located in the upper right corner of the Discharge Monitoring Report.

OTHER REQUIREMENTS (cont.)

Monitoring results for each month shall be summarized on a Discharge Monitoring Report (DMR) Form (one DMR Form per month) and submitted to the Office of Environmental Compliance on a quarterly basis. The schedule for quarterly DMR submission is as follows:

Monitoring Period	DMR Due Date
January, February, March	April 28th
April, May, June	July 28th
July, August, September	October 28th
October, November, December	January 28th

The original DMR signed and certified as required by LAC 33:IX.2503.B, and all other reports required by this permit shall be submitted to the Permits Compliance Unit, and a copy of the DMR and all other reports required by this permit shall also be submitted to the appropriate LDEQ regional office at the following addresses:

Department of Environmental Quality
Office of Environmental Compliance
Enforcement Division
Post Office Box 4312
Baton Rouge, Louisiana 70821-4312
Attention: Permit Compliance Unit

Southeast Regional Office
Office of Environmental Compliance
Surveillance Division
201 Evans Road, Bldg 4, Suite 420
New Orleans, LA 70123-5230

8. There shall be no discharge of truck, barge equipment washwater or stormwater from truck and equipment wash areas.

OTHER REQUIREMENTS (cont.)

SECTION B. STORMWATER DISCHARGES

1. This section applies to all stormwater discharges from the facility, either through permitted outfalls or through outfalls which are not listed in the permit or as sheet flow.

2. Any runoff leaving the developed areas of the facility, other than the permitted outfall(s), exceeding 50 mg/L TOC, 15 mg/L Oil and Grease, or having a pH less than 6.0 or greater than 9.0 standard units shall be a violation of this permit. Any discharge in excess of these limitations, which is attributable to offsite contamination shall not be considered a violation of this permit. A visual inspection of the facility shall be conducted and a report made annually as described in Paragraph 4 below.

3. The permittee shall prepare, implement, and maintain a Storm Water Pollution Prevention Plan (SWP3) within six (6) months of the effective date of the final permit. The terms and conditions of the SWP3 shall be an enforceable Part of the permit. EPA document 833-R-92-002 (Storm Water Management for Industrial Activities) may be used as a guidance and may be obtained by writing to the U.S. Environmental Protection Agency, Office of Water Resources (RC-4100), 401 M Street, S.W., Washington D.C. 20460 or by calling (202) 260-7786.

4. The following conditions are applicable to all facilities and shall be included in the SWP3 for the facility.

   a. The permittee shall conduct an annual inspection of the facility site to identify areas contributing to the storm water discharge from developed areas of the facility and evaluate whether measures to reduce pollutant loadings identified in the SWP3 are adequate and have been properly implemented in accordance with the terms of the permit or whether additional control measures are needed.

   b. The permittee shall develop a site map which includes all areas where stormwater may contact potential pollutants or substances which can cause pollution. Any location where reportable quantities leaks or spills have previously occurred are to be documented in the SWP3. The SWP3 shall contain a description of the potential pollutant sources, including, the type and quantity of material present and what action has been taken to assure stormwater precipitation will not directly contact the substances and result in contaminated runoff.

   c. Where experience indicates a reasonable potential for equipment failure (e.g. a tank overflow or leakage), natural condition of (e.g. precipitation), or other circumstances which result in significant amounts of pollutants reaching surface waters, the SWP3 should include a prediction of the direction, rate of flow and total quantity of pollutants which could be discharged from the facility as a result of each condition or circumstance.

   d. The permittee shall maintain for a period of three years a record summarizing the results of the inspection and a certification that the facility is in compliance with the SWP3 and the permit, and identifying any incidents of noncompliance. The summary report should contain, at a minimum, the date and time of inspection, name of inspector(s), conditions found, and changes to be made to the SWP3.

   e. The summary report and the following certification shall be signed in accordance with LAC 33:IX.2503. The summary report is to be attached to the SWP3 and provided to the Department upon request.

      "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information,

OTHER REQUIREMENTS (cont.)

the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Signatory requirements for the certification may be found in Part III, Section D.10 of this permit.

f. The permittee shall make available to the Department, upon request, a copy of the SWP3 and any supporting documentation.

5 The following shall be included in the SWP3, if applicable.

a. The permittee shall utilize all reasonable methods to minimize any adverse impact on the drainage system including but not limited to:
   i. maintaining adequate roads and driveway surfaces;
   ii. removing debris and accumulated solids from the drainage system; and
   iii. cleaning up immediately any spill by sweeping, absorbent pads, or other appropriate methods.
   iv. any oil field waste spilled or tracked in any area draining to outfall 002 shall be cleaned-up immediately, including but not limited to, landfarm equipment moving from one cell to the another.

b. All spilled product and other spilled wastes shall be immediately cleaned up and disposed of according to all applicable regulations, Spill Prevention and Control (SPC) plans or Spill Prevention Control and Countermeasures (SPCC) plans. Use of detergents, emulsifiers, or dispersants to clean up spilled product is prohibited except where necessary to comply with State or Federal safety regulations (i.e., requirement for non-slippery work surface). In all such cases, initial cleanup shall be done by physical removal and chemical usage shall be minimized.

c. All equipment, parts, dumpsters, trash bins, petroleum products, chemical solvents, detergents, or other materials exposed to stormwater shall be maintained in a manner which prevents contamination of stormwater by pollutants.

d. All waste fuel, lubricants, coolants, solvents, or other fluids used in the repair or maintenance of vehicles or equipment shall be recycled or contained for proper disposal. Spills of these materials are to be cleaned up by dry means whenever possible.

e. All storage tank installations (with a capacity greater than 660 gallons for an individual container, or 1,320 gallons for two or more containers in aggregate within a common storage area) shall be constructed so that a secondary means of containment is provided for the entire contents of the largest tank plus sufficient freeboard to allow for precipitation. Diked areas should be sufficiently impervious to contain spills.

f. All diked areas surrounding storage tanks or stormwater collection basins shall be free of residual oil or other contaminants so as to prevent the accidental discharge of these materials in the event of flooding, dike failure, or improper draining of the diked area. All drains from diked areas shall be equipped with valves which shall be kept in the closed condition except during periods of supervised discharge.

g. All check valves, tanks, drains, or other potential sources of pollutant releases shall be inspected and maintained on a regular basis to assure their proper operation and to prevent the discharge of pollutants.

h. The permittee shall assure compliance with all applicable regulations promulgated under the Louisiana Solid Waste and Resource Recovery Law and the Hazardous Waste Management Law (L.R.S. 30:2151, etc.). Management practices required under above regulations shall be referenced in the SWP3.

OTHER REQUIREMENTS (cont.)

i. The permittee shall amend the SWP3 whenever there is a change in the facility or change in the operation of the facility which materially increases the potential for the ancillary activities to result in a discharge of significant amounts of pollutants.

j. If the SWP3 proves to be ineffective in achieving the general objectives of preventing the release of significant amounts of pollutants to water of the state, then the specific objectives and requirements of the SWP3 shall be subject to modification to incorporate revised SWP3 requirements.

6. Facility Specific SWP3 Conditions:

None

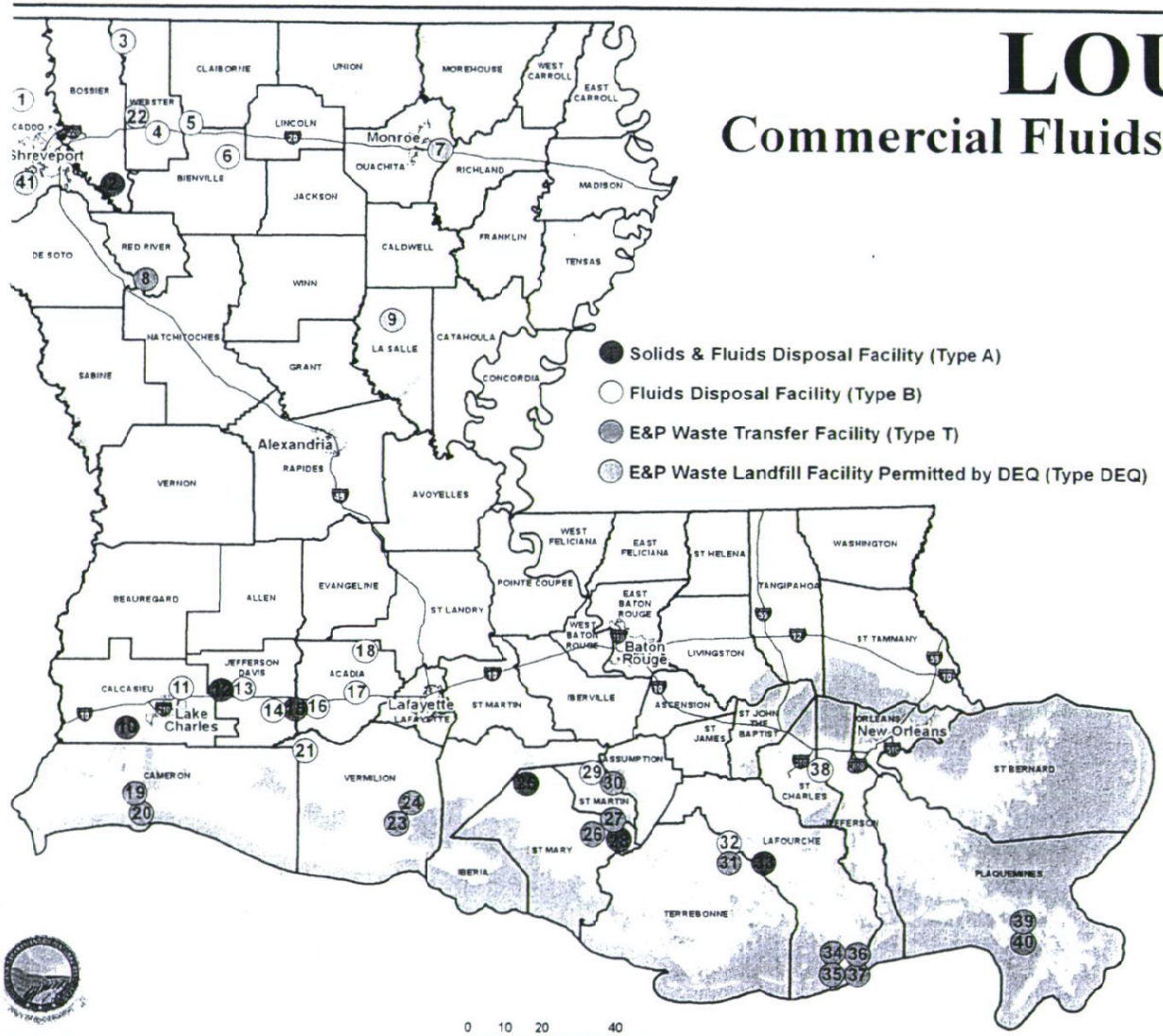
ATTACHMENT D

NEAREST DISPOSAL FACILITIES

TO LAKE LONG FIELD

LOUISIANA

Commercial Fluids & Solids Disposal Facilities



Label	Facility Name	Parish	Facility Type
1	Key Energy Services - Oil City	Caddo	Fluids
	U S Liquids - Elm Grove	Bossier	Solids/Fluids
3	Nabors Well Services	Webster	Fluids
4	Lebus Oilfield Service	Webster	Fluids
5	Key Energy Services - Athens	Claiborne	Fluids
6	Bear Creek Environmental Systems	Bienville	Fluids
7	CWI - White Oaks Landfill	Ouchita	E&P Waste Landfill Permitted by DEQ
8	U S Liquids - Red River	Red River	Transfer Station
9	LaSalle/Grant Landfill	LaSalle	E&P Waste Landfill Permitted by DEQ
	Chemical Waste Management	Calcasieu	Solids/Fluids
11	Louisiana Tank	Calcasieu	Fluids
	MBO, Inc. Lacassine	Jefferson Davis	Solids/Fluids
13	SWD Inc.	Jefferson Davis	Fluids
14	Charles Holston - Jennings	Jefferson Davis	Fluids
	U S Liquids - Mermentau	Jefferson Davis	Solids/Fluids
16	Saline Injection Systems Co.	Acadia	Fluids
17	Habetz Oilfield Saltwater Service	Acadia	Fluids
18	CHI dba Guillory Tank Truck Service	Acadia	Fluids
19	U S Liquids - Cameron	Cameron	Transfer Station
20	Newpark - Cameron	Cameron	Transfer Station
21	Charles Holston - Gueydan	Vermilion	Fluids
22	Webster Parish Landfill	Webster	E&P Waste Landfill Permitted by DEQ
23	Newpark - ICY	Vermilion	Transfer Station
24	U S Liquids - ICY II	Vermilion	Transfer Station
	PSC Industrial Outsourcing	St. Mary	Solids/Fluids
26	U S Liquids - Berwick	St. Mary	Transfer Station
27	Newpark - MCY	St. Mary	Transfer Station
	U S Liquids - Bateman Island	St. Mary	Solids/Fluids
29	FAS Environmental	St. Martin	Fluids
30	FAS Environmental	St. Martin	Transfer Station
31	Houma SWD	Terrebonne	Transfer Station
32	Houma SWD	Terrebonne	Fluids
	U S Liquids - Bourg	Lafourche	Solids/Fluids
34	Newpark - Fourchon I	Lafourche	Transfer Station
35	U S Liquids - Fourchon I	Lafourche	Transfer Station
36	U S Liquids - Fourchon II	Lafourche	Transfer Station
37	Newpark - Fourchon II	Lafourche	Transfer Station
38	River Birch - Avondale	Jefferson	Fluids
39	U S Liquids - Venice	Plaquemines	Transfer Station
40	Newpark - Venice	Plaquemines	Transfer Station
41	Woolworth Landfill	Caddo	E&P Waste Landfill Permitted by DEQ

Map Compiled By:
LDNR Office of Conservation
Geological Divsion
May 3, 2010

NOTE: Data from this map are not to be used for legal purposes.

APPENDIX

LAC43:XIX, CHAPTER 5

Offsite Storage, Treatment and/or Disposal of Exploration and Production Waste Generated from Drilling and Production of Oil and Gas Wells

flow regimes is required if present. A summary of the properties of the injected fluids used in the analysis and the injection rates observed during each injection period must be included in the report, in addition to any other information which may be pertinent to the results of the falloff analysis.

6. The operator shall provide a diskette or compact disk of the well's continuous bottom hole pressure and rate data for the reporting period in a format specified by the commissioner.

7. In addition, the operator shall provide an explanation for any discrepancies in the bottomhole or surface pressures, densities, viscosities and injection rates in a comments column of the report. If an acceptable explanation for any discrepancy in this data is not provided, the commissioner may suspend the well's permit to inject until the operator provides this information.

8. All records required in this Section shall be maintained by the operator for the life of the well and shall be made available for review or submitted to the Office of Conservation upon request.

L. Permitting Requirements

1. Applicants and applications for slurry fracture injection wells must comply with the applicable public notice requirements of this Chapter.

2. Applications for slurry fracture injection of E&P Waste shall comply with the following two-part permitting procedures:

a. Part I—Permit to Construct

i. The initial application shall be reviewed for completeness, processed and upon meeting the permit requirements, a "Permit to Construct" shall be issued.

ii. "Permit to Construct" shall become null and void one year from the date of issuance.

iii. The commissioner may grant a one year extension from mitigating circumstances.

b. Part II—Permit to Inject

i. Upon completion of construction, the documentation required by the "Permit to Construct" shall be submitted to the Office of Conservation.

ii. If the submitted documentation indicates compliance with the "Permit to Construct" and that the well has been constructed as permitted and indicated in the application, a "Permit to Inject" shall be issued.

3. Slurry fracture injection wells permitted under the authority of this Section must comply with the applicable general requirements, public notice requirements, work permit requirements, legal permit conditions, permit transfer requirements, mechanical integrity pressure testing requirements, confinement of fluid requirements, and plugging and abandonment requirements of LAC 43:XIX.Chapter 4.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:4 et seq.

HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation, LR 27:1921 (November 2001).

§441. Effect on Existing Special Orders

A. This order shall supersede §129 of Office of Conservation Statewide Order No. 29-B (effective November 1, 1967). Any existing special orders authorizing disposal of saltwater under conditions which do not meet the requirements hereof shall be superseded by this amendment and the operator shall obtain authority for such disposal after complying with the provisions hereof.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:4 et seq.

HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation, LR 26:2811 (December 2000).

§443. Applicability

A. All oil and gas and commercial facility operators shall be required to comply with applicable portions of this amendment within 90 days of the effective date, provided that all existing commercial facility operators shall be exempt from all permit application and public hearing requirements under §527 of this Order. Failure to comply with this requirement in a timely manner will subject an operator to the suspension or revocation of his permit and/or the imposition of penalties pursuant to R.S. 30:18.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:4 et seq.

HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation, LR 26:2811 (December 2000).

Chapter 5. Off-Site Storage, Treatment and/or Disposal of Exploration and Production Waste Generated from Drilling and Production of Oil and Gas Wells

NOTE: Onsite disposal requirements are listed in LAC 43:XIX, Chapter 3

Editor's Note: Statewide Order 29-B was originally codified in LAC 43:XIX as §129. In December 2000, §129 was restructured into Chapters 3, 4 and 5. Chapter 3 contains the oilfield pit regulations. Chapter 4 contains the injection/disposal well regulations. Chapter 5 contains the commercial facility regulations. A cross-reference chart in the December 2000 *Louisiana Register*, page 2798, indicates the locations for the rules in each existing Section.

Editor's Note: Chapter 5 was amended in November 2001. A chart showing the restructuring of Chapter 5 is found on page 1898 of the *Louisiana Register*, November 2001.

§501. Definitions

Application Phase—an identifiable period of time during which E&P Waste receipts are applied to a land treatment cell.

Cell—an earthen area constructed with an underdrain system within a land treatment facility used for the

placement, land treatment and degradation of E&P Waste at a commercial facility. (A *cell* as defined in this Section is not considered a pit.)

Closed System—a system in which E&P Waste is stored and treated in an enclosed sump, tank, barge, or other vessel/container or equipment prior to treatment and/or disposal. A closed system does not include an open top sump or earthen pit.

Commercial Facility—a legally permitted E&P Waste storage, treatment and/or disposal facility which receives, treats, reclaims, stores, and/or disposes of E&P Waste for a fee or other consideration. For purposes of this definition, Department of Environmental Quality (DEQ) permitted facilities, as defined by LAC 33:V and VII, which are authorized to receive E&P Waste, are not covered by this definition. However, such facilities must comply with the reporting requirements of §545.K herein if E&P Waste is accepted.

Commissioner—the Commissioner of Conservation of the State of Louisiana.

Community Saltwater Disposal Well or System—a saltwater disposal well within an oil or gas field which is operated by one operator of record for disposal of E&P Waste fluids and used by other operators of record in the same field or adjacent fields for noncommercial disposal of their produced water. Such operators share in the costs of operating the well/system. For purposes of this definition, *adjacent fields* means oil or gas fields or portions thereof which are located within or partially encroach upon the same township as a community saltwater disposal well or one or more townships all of which are directly contiguous to the township in which the community saltwater disposal well is located.

Container—a sump, storage tank, process vessel, truck, barge, or other receptacle used to store or transport E&P Waste.

Drilling Waste—oil-base and water-base drilling mud or other drilling fluids and cuttings generated during the drilling of wells. These wastes are a subset of E&P Waste.

Exploration and Production Waste (E&P Waste)—drilling wastes, salt water, and other wastes associated with the exploration, development, or production of crude oil or natural gas wells and which is not regulated by the provisions of, and, therefore, exempt from the Louisiana Hazardous Waste Regulations and the Federal Resource Conservation and Recovery Act, as amended. E&P Wastes include, but are not limited to the following.

Waste Type	E&P Waste Description
01	Salt water (produced brine or produced water), except for salt water whose intended and actual use is in drilling, workover or completion fluids or in enhanced mineral recovery operations, process fluids generated by approved salvage oil operators who only receive oil (BS&W) from oil and gas leases, and nonhazardous natural gas plant processing waste fluid which is or may be commingled with produced formation water.
02	Oil-base drilling wastes (mud, fluids and cuttings)
03	Water-base drilling wastes (mud, fluids and cuttings)
04	Completion workover and stimulation fluids
05	Production pit sludges
06	Storage tank sludge from production operations, onsite and commercial saltwater disposal facilities, DNR permitted salvage oil facilities (that only receive waste oil [B,S, & W] from oil and gas leases), and sludges generated by service company and commercial facility or transfer station wash water systems
07	Produced oily sands and solids
08	Produced formation fresh water
09	Rainwater from firewalls, ring levees and pits at drilling and production facilities.
10	Washout water and residual solids generated from the cleaning of containers that transport E&P Waste and are not contaminated by hazardous waste or material, washout water and solids (E&P Waste Type 10) is or may be generated at a commercial facility or transfer station by the cleaning of a container holding a residual amount of E&P Waste
11	Washout pit water and residual solids from oilfield related carriers and service companies that are not permitted to haul hazardous waste or material.
12	Nonhazardous Natural gas plant processing waste solids
13	(Reserved)
14	Pipeline test water which does not meet discharge limitations established by the appropriate state agency, or pipeline pigging waste, i.e. waste fluids/solids generated from the cleaning of a pipeline.
15	E&P Wastes that are transported from permitted commercial facilities and transfer stations to permitted commercial treatment and disposal facilities, except those E&P Wastes defined as Waste Types 01 and 06.
16	Crude oil spill clean-up waste.
50	Salvageable hydrocarbons bound for permitted salvage oil operators
99	Other E&P Waste not described above (shipment to a commercial facility or transfer station must be pre-approved prior to transport).

Generator—any person or entity who generates or causes to be generated any E&P Waste.

Groundwater Aquifer—as defined in §301.

Inactive Cell—a land treatment cell which is not used for E&P Waste receipts or has been taken out of service by a land treatment facility. Such cell may be considered inactive only if it is a new cell which has not yet received E&P Waste or an existing cell which is in compliance with the applicable testing criteria of this Chapter.

Land Treatment—a dynamic process involving the controlled application of E&P Waste onto or into the aerobic surface soil horizon in open cells by a commercial land treatment facility, accompanied by continued monitoring and management, to alter the physical, chemical, and biological state of the E&P Waste. Site, soil, climate, and biological activity interact as a system to degrade and immobilize E&P Waste constituents thereby rendering the area suitable for the support of vegetative growth and providing for beneficial future land use or to meet the reuse criteria of §565.

MPC—maximum permissible concentration.

Offsite—for purposes of this Section, outside the confines of a drilling unit for a specific well or group of wells, or in the absence of such a unit, outside the boundaries of a lease

or contiguous property owned by the lessor upon which a well is drilled.

Oil-Based Drilling Muds—any oil-based drilling fluid composed of a water in oil (hydrocarbon or synthetic) emulsion, organophillic clays, drilled solids and additives for down-hole rheology and stability such as fluid loss control materials, thinners, weighting agents, etc.

Pit—an earthen surface impoundment constructed to retain E&P Waste, often referred to as a pond or lagoon. The term does not include lined sumps less than 660 gallons.

Residual—the de-minimis quantity of E&P Waste (solids or liquids) remaining in a container after offloading, using the practices commonly employed to remove materials from that type of container (e.g., pouring, pumping, and aspirating) and amounting to no more than one inch of residue remaining on the bottom, or no more than three percent by weight of the total capacity of the container if the container is less than or equal to 110 gallons in size, or no more than 0.3 percent by weight of the total capacity of the container if the container is greater than 110 gallons in size.

Reusable Material—a material that would otherwise be classified as E&P Waste, but which is capable of resource conservation and recovery and has been processed in whole or in part for reuse. To meet this definition, the material must have been treated physically, chemically, or biologically or otherwise processed so that the material is significantly changed (i.e., the new material is physically, chemically, or biologically distinct from the original material), and meets the criteria of §565.F.

Salt Cavern Waste Disposal Facility—any public, private, or commercial property, including surface and subsurface lands and appurtenances thereto, used for receiving, storing, and/or processing oil and gas exploration and production waste for disposal into a solution-mined salt cavern.

Salt Water—water with a chloride content greater than 500 ppm generated from a producing oil or gas well.

Sump—a container constructed of steel, fiberglass, sealed concrete, or some other impermeable material utilized for temporary storage of E&P Waste, including, but not limited to, wash water and solids (sludge) generated by the removal/cleaning of residual amounts of E&P Waste from storage containers.

Transfer Station—an E&P Waste receiving and storage facility, located offsite, but operated at an approved location in conjunction with a permitted commercial facility, which is used for temporary storage of manifested E&P Waste for a period of 30 days or less.

Transporter—a legally permitted carrier of E&P Waste contained in trucks, barges, boats, or other transportation vessels.

Treatment—as applied to Type A Facilities (defined herein), excluding Transfer Stations, treatment shall be defined as any method, technique, or process capable of changing the physical and/or chemical characterization or composition of E&P Waste so as to reclaim salvageable hydrocarbons, process reusable material, reduce waste volume (volume reduction), neutralize waste, reduce §549 criteria concentration(s) or otherwise render the waste more suitable for handling, storage, transportation, and/or disposal.

Treatment Phase—the period of time during which E&P Waste in a land treatment cell is physically manipulated and/or chemically altered (through the addition of chemical amendments, etc.) to bring the cell into compliance with the testing criteria or reuse criteria of LAC 43:XIX.549 and 565.

Treatment Zone—the soil profile in a land treatment cell that is located wholly above the saturated zone and within which degradation, transformation, or immobilization of E&P Waste constituents occurs. The treatment zone is subdivided as follows.

1. *Waste Treatment Zone (WTZ)*—the active E&P Waste treatment area consisting solely of the E&P Waste solids applied to a land treatment cell during the application phase, exists entirely above grade (original cell bottom), and whose actual depth depends on the solids content of the E&P Waste applied. For monitoring purposes the WTZ represents the 0-24" depth increment.

2. *Upper Treatment Zone (UTZ)*—the E&P Waste/native soil (original cell bottom) interface in a land treatment cell where some disturbance occurs as a result of E&P Waste treatment/manipulation. For monitoring purposes, the UTZ represents the 24-36" depth increment.

3. *Lower Treatment Zone (LTZ)*—the zone beneath the UTZ in a land treatment cell from approximately 36-54" (or to the top of the subsurface drainage system) which remains undisturbed throughout the life of a land treatment cell.

Type A Facility—a commercial E&P Waste disposal facility within the state that utilizes technologies appropriate for the receipt, storage, treatment, or disposal of E&P Waste solids and fluids (liquids) for a fee or other consideration.

Type B Facility—a commercial E&P Waste disposal facility within the state that utilizes underground injection technology for the receipt, storage, treatment, and disposal of only saltwater or other E&P Waste fluids (liquids) for a fee or other consideration.

Waste Management and Operations Plan—a plan as identified and required in §515.

Water-Based Drilling Muds—any water-based fluid composed of fresh water, naturally occurring clays, drilled solids and additives for fluid loss control, viscosity, thinning, pH control, weight control, etc., for down-hole rheology and stability.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:4 et seq.

HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation, LR 26:2811 (December 2000), amended LR 27:1898 (November 2001), LR 29:937 (June 2003), LR 34:1421 (July 2008).

§503. General Requirements for Generators of E&P Waste

A. E&P Waste Characterization

1. Generators of E&P Waste must be familiar with the components of the E&P Waste they generate.

2. If not previously characterized, E&P Waste characterization procedures should be undertaken to determine the constituents of E&P Waste prior to disposal.

3. At a minimum, E&P Waste should be tested for the following constituents: pH, TPH, EC, TCLP benzene, SAR, ESP and the following metals: As, Ba, Cd, Cr, Cu, Pb, Hg, Mo, Ni, Se, Ag and Zn.

4. E&P Waste should be re-characterized if the waste generation process changes significantly (e.g., process change, chemical additives, etc.).

5. E&P Waste which is to be taken offsite or has been taken offsite for storage, treatment, or disposal may be required to be sampled and analyzed in accordance with EPA protocols or Office of Conservation (OC) approved procedures.

B. The unpermitted or unauthorized onsite or offsite storage, treatment, disposal or discharge of E&P Waste is prohibited and is a violation of these rules.

C. Subsurface disposal of salt water is required and regulated by LAC 43:XIX.401 et seq. The requirements of this Chapter do not apply to either lease saltwater disposal wells or to community saltwater disposal wells.

D. The generator is responsible for the proper handling and transportation of E&P Waste taken offsite for storage, treatment, or disposal to assure its proper delivery to an approved commercial facility or transfer station or other approved storage, treatment or disposal facility. Failure to properly transport and dispose of E&P Waste shall subject the generator to penalties provided for in R.S. 30:18. Each shipment must be documented as required by §545.

E. At the option of the generator, E&P Waste may be treated and/or disposed at Department of Natural Resources (DNR) permitted commercial facilities and transfer stations under the provisions of this Chapter or Department of Environmental Quality (DEQ) permitted facilities as defined by LAC 33:V and VII which are permitted to receive E&P Waste which are subject to relevant DEQ regulations. If received, stored, treated and/or disposed at a DEQ regulated facility, E&P Waste would become the sole regulatory responsibility of DEQ upon receipt.

F. Requirements for E&P Waste Type 06 (Storage Tank Sludge) and E&P Waste Type 12 (Gas Plant Waste Solids)

1. Generators of Waste Type 06 are hereby made aware that commercial land treatment facilities must manage such waste in compliance with the location criteria of §507.A.3 and the maximum permissible concentration (MPC) requirements of §549.C.7.c and d for total benzene.

2. Waste Types 12 is not required to be tested for benzene if disposed at commercial facilities that utilize treatment options other than land treatment (see §547).

3. Prior to shipment and disposal at commercial land treatment facilities, natural gas plant processing waste solids (gas plant waste—Waste Type 12) must be analyzed for the chemical compound benzene (C_6H_6). Testing must be performed by a DEQ certified laboratory in accordance with procedures presented in the *Laboratory Manual for the Analysis of E&P Waste* (Department of Natural Resources, August 9, 1988, or latest revision).

4. Subject to the requirements of §507.A.3 and §549.C.7.a, Waste Type 12 may be disposed at any commercial land treatment facility if test data indicates the waste is less than or equal to the MPC of 3198 mg/kg total benzene.

5. If test data indicates the concentration of total benzene in Waste Type 12 is above 3198 mg/kg (MPC criteria), the following disposal options are available:

a. dispose of the waste at a permitted commercial facility that utilizes an E&P Waste treatment or disposal option other than land treatment;

b. treat the waste (on-site) to a concentration of total benzene equal to or below 3198 mg/kg prior to off-site shipment to any commercial land treatment facility;

c. dispose of the E&P Waste at a commercial land treatment facility that has been approved for the receipt, storage, treatment and disposal of E&P Waste that exceeds a total benzene concentration of 3198 mg/kg; or

d. dispose of the E&P Waste at Department of Environmental Quality (DEQ) permitted facilities as defined by LAC 33:V and VII, pursuant to the provisions of §503.E above.

6. If a generator chooses to dispose of Waste Type 12 at a commercial land treatment facility, the generator must attach a copy of the laboratory report to the manifest which accompanies each shipment of the E&P Waste.

7. Commercial land treatment facilities may not receive, store, treat or dispose of E&P Waste Type 12, gas plant waste solids, unless the requirements of §505.B have been met.

G. Prohibition of Waste Mixing

1. A mixture of E&P Wastes containing amounts greater than residual quantities of Waste Type 06 (and associated wash water) shall be designated as Waste Type 06, and if land treated, must meet the distance requirements for Waste Type 06 in §507.A.3 below.

2. Mixing Waste Type 12 with any other E&P Waste type prior to sampling and shipment to a commercial land treatment facility or transfer station is strictly prohibited.

3. Any inadvertent or unavoidable mixture of E&P Wastes containing any quantity of Waste Type 12 (and associated wash water) must meet the MPC testing criteria

of §549.C.7.a for total benzene and must meet the distance requirements for Waste Type 12 in §507.A.3.

H. General Reporting Requirements

1. Any spills which occur during the offsite transportation of E&P Waste shall be reported by phone to the Office of Conservation, within 24 hours of the spill and the appropriate state and federal agencies.

2. Operators (generators) are required to report the discovery of any unauthorized disposal of E&P Waste by transporters, or any other oilfield contracting company.

3. Within six months of the completion of the drilling or workover of any well permitted by the Office of Conservation, the operator (generator) shall comply with the reporting requirements of LAC 43:XIX.303 or successor regulations regarding the disposition of any E&P Wastes.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:4 et seq.

HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation, LR 26:2813 (December 2000), amended LR 27:1900 (November 2001), LR 29:937 (June 2003).

§505. General Requirements for Commercial Facilities and Transfer Stations

A. The offsite storage, treatment, and/or disposal of E&P Waste by a commercial facility or transfer station must be approved by the commissioner as provided in this Chapter.

B. Commercial land treatment facilities may not receive, store, treat or dispose of natural gas plant processing waste solids (Waste Type 12) that exceed the MPC criteria of §549.C.7.a for total benzene (3198 mg/kg) unless the company has demonstrated to the commissioner that Waste Type 12 can be pretreated to below the applicable MPC prior to land treatment. Such demonstration shall be considered a major modification of any existing permit and will require compliance with the permitting procedures of §§519, 527, and 529, including the submission of an application and public participation. The E&P waste management and operations plan required in §515 shall clearly indicate how the E&P Waste storage and treatment system will minimize the release of benzene (e.g., enclosed tanks, enclosed treatment equipment, vapor recovery systems, etc.). Such demonstration shall also include proof of solicitation from DEQ regarding applicable required air permitting for the existing and amended land treatment system.

C. Land treatment facilities that accept Waste Type 06 must meet the location criteria of §507.A.3 and the E&P Waste pretreatment and treatment criteria of §549.C.7.c and d.

D. Approval of Transfer Station Required: The construction and operation of a transfer station must be approved by the commissioner upon submission of a permit application according to the requirements of §521.

E. The commissioner will consider and encourages the electronic submission of applications, data or reports required under this Chapter.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:4 et seq.

HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation, LR 26:2813 (December 2000), amended LR 27:1901 (November 2001), LR 29:937 (June 2003).

§507. Location Criteria

A. Commercial facilities and transfer stations may not be located in any area:

1. within 1/4 mile of a public water supply water well or within 1,000 feet of a private water supply well for facilities permitted after January 1, 2002;

2. where Type A and B facilities and transfer stations, Class II disposal wells, storage containers and E&P Waste treatment systems and related equipment are located within 500 feet of a residential, commercial, or public building, church, school or hospital;

3. where the perimeter of any Type A land treatment cell is located within restricted distances from a residential or public building, church, school, or hospital for treatment of Waste Types 06 and 12 as listed below:

Special Conditions	Restricted Distance
Land treatment of Waste Type 06:	
≤ 113 mg/kg total benzene (MPC)	1,000'
Not tested or > 113 mg/kg total benzene (MPC)	2,000'
Land treatment of Waste Type 12	
≤ 3198 mg/kg total benzene (MPC)	2,000'
> 3198 mg/kg total benzene (MPC)	(banned)
Land treatment of all other E&P Waste types	1,000'

4. where the subsurface geology of any proposed injection zone (reservoir) does not exhibit the following characteristics:

a. adequate thickness and areal extent of the proposed injection zone; and

b. adequate clay confining beds separating the top of the proposed injection zone and the base of the lowermost underground source of drinking water;

5. where permanent E&P Waste storage containers, land treatment cells, and storm water retention (sediment) ponds are located in a "V" or "A" zone as determined by flood hazard boundary or rate maps and other information published by the Federal Emergency Management Agency (FEMA) unless adequate levees are constructed to at least 1 foot above the 100-year flood elevation as certified by a professional engineer or surveyor and able to withstand the velocity of the 100-year flood. Existing facilities located in a "V" or "A" zone will be required to build facility levees above the 100-year flood elevation as certified by a professional engineer or land surveyor. As conditions change and new data is made available by FEMA, owners of existing commercial facilities and transfer stations will be required to update their facilities accordingly;

6. where such area, or any portion thereof, has been designated as wetlands by the U.S. Corps of Engineers during, or prior to, initial facility application review, unless

the applicable wetland and DNR Coastal Management Division coastal use permits are obtained;

7. where other surface or subsurface conditions exist which in the determination of the Commissioner of Conservation would cause the location to pose a threat of substantial, adverse effects on public health or safety or the environment at or near the location.

B. If the owner of the residence or commercial building or the administrative body responsible for the public building, hospital or church waives the distance requirements of §507.A.2 above, such waiver must be in writing, shall contain language acceptable to the commissioner, and shall be included in the permit application.

C. Transfer stations are exempt from the location requirement of 500 feet from a commercial building.

D. The above location criteria shall apply to commercial facilities in existence on November 20, 2001 and shall be applied to a proposed new facility or modification of an existing facility as of the date the notice of intent is published or the date the application is filed with the Office of Conservation, whichever is earlier.

E. Any encroachment upon applicable location criteria after the date the notice of intent is published or the application is filed, whichever is earlier, shall not be considered a violation of this Section.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:4 et seq.

HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation, LR 26:2817 (December 2000), amended LR 27:1901 (November 2001), LR 29:938 (June 2003).

§509. Design Criteria

A. Commercial facilities, transfer stations and commercial Class II saltwater disposal wells shall be designed and constructed in such a manner as to prevent the movement of E&P Waste into soil, groundwater aquifers or underground sources of drinking water (USDWs) and to prevent the discharge of E&P Waste materials or E&P Waste byproducts into man-made or natural drainage or directly into state waters unless a discharge permit has been received from the appropriate state or federal agency.

B. Commercial facilities and transfer stations shall be designed and constructed in a manner which is protective of public health, safety and welfare or the environment, surface waters, groundwater aquifers and underground sources of drinking water in accordance with, but not limited to, the following requirements:

1. all applicable construction and operational standards of this Chapter, as well as Chapter 2, Chapter 3, and Chapter 4 of LAC 43:XIX, Subpart 1, Statewide Order No. 29-B;

2. facility design shall provide for the segregation, separation, and containment of free oil, where appropriate;

3. retaining walls (levees) shall be built around all above-ground storage tanks to a level that will provide sufficient capacity to retain the contents of each tank and prevent the release of stored E&P Wastes due to tank leakage, or some other cause;

4. spill containment systems shall be built around unloading areas to prevent the escape of any E&P Wastes spilled during off-loading; and

5. limited access to E&P Waste transported on land shall be provided by a lockable gate system. The need for a 6-foot chain-link fence around an entire facility or any portion of a facility will be determined after a site investigation by the commissioner or his designated representative. Gates shall be locked except during the hours a facility is permitted to receive E&P Waste.

C. Land treatment cells shall not exceed 5 acres in size.

D. Except for storm water retention (sediment) ponds at land treatment facilities (§549.C.12) and sumps as defined in §501, earthen or artificially lined pits shall not be constructed or used for storage of E&P Waste at any commercial facility or transfer station.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:4 et seq.

HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation, LR 26:2817 (December 2000), amended LR 27:1902 (November 2001).

§511. Financial Responsibility

A. Each permitted commercial facility and transfer station must maintain evidence of financial responsibility for any liability for damages which may be caused to any party by the escape or discharge of any material or E&P Waste offsite from the commercial facility or transfer station. Such evidence must be provided by the applicant prior to issuance of a permit. Failure to maintain such evidence shall lead to initiation of procedures for permit suspension. If suspended, the permit shall remain suspended until financial responsibility has been confirmed.

B. Financial responsibility may be evidenced by filing a letter of credit, bond, certificates of deposit issued by and drawn on Louisiana banks, or any other evidence of equivalent financial responsibility acceptable to the commissioner.

C. In no event shall the amount and extent of such financial responsibility be less than the face amounts per occurrence and/or aggregate occurrences as set by the commissioner below:

1. $500,000 minimum financial responsibility for any commercial facility (excluding transfer stations) which stores, treats or disposes of E&P Waste solids (i.e. oil- or water-base drilling fluids, etc.); or

2. $250,000 minimum financial responsibility for a commercial salt water disposal facility which utilizes underground injection and a closed storage system; and

3. $100,000 minimum financial responsibility for each transfer station operated in conjunction with a legally

permitted commercial facility subject to the guidelines of this Section.

NOTE: The commissioner retains the right to increase the face amounts set forth above as needed in order to prevent waste and to protect public health, safety, and welfare or the environment.

D. If insurance coverage is proposed and accepted to meet the financial responsibility requirement, it must be provided by an insurer that is licensed to transact the business of insurance, or eligible to provide insurance as an excess of surplus lines insurer, in one or more states, and is authorized to conduct insurance business in the state of Louisiana.

1. For a commercial facility which operates land treatment cells, such insurance must provide sudden and accidental pollution liability coverage as well as environmental impairment liability coverage.

2. For any commercial facility or transfer station which does not operate land treatment cells, such insurance must provide sudden and accidental pollution liability coverage.

E. Proof of insurance must be provided by a certificate of liability insurance which must be worded as follows, except that the instructions in brackets are to be replaced with the relevant information and the brackets deleted.

Commercial Facility
Certificate of Liability Insurance

1. [Name of Insurer], (the "Insurer") of [address of Insurer] hereby certifies that it has issued liability insurance covering bodily injury and property damage to [name of insured], (the "insured"), of [address of insured] in connection with the insured's obligation to demonstrate financial responsibility under LAC 43:XIX.511. The coverage applies at [site code or address for each facility] for [insert "sudden and accidental pollution liability" or "environmental impairment"]. The limits of liability are [insert the dollar amount of "each occurrence" and "annual aggregate" limits of the Insurer's liability], exclusive of legal defense costs. The coverage is provided under policy number _____, issued on [date]. The effective date of said policy is [date].

2. The insurer further certifies the following with respect to the insurance described in LAC 43:XIX.511.E.1.

a. Bankruptcy or insolvency of the insured shall not relieve the insurer of its obligation under the policy.

b. The insurer is liable for the payment of amounts within any deductible applicable to the policy, with a right of reimbursement by the insured for any such payment made by the insurer. This provision does not apply with respect to that amount of any deductible for which coverage is demonstrated.

c. Whenever requested by the Commissioner of Conservation, the insurer agrees to furnish to the commissioner a signed duplicate original of the policy and all endorsements.

d. Cancellation of the insurance, whether by the insurer, the insured, a parent corporation providing insurance coverage for its subsidiary, or by a firm having an insurable interest in and obtaining liability insurance on behalf of the owner or operator of the commercial facility or transfer station, will be effective only upon written notice and only after the expiration of 60 days after a copy of such written notice is received by the Commissioner of Conservation.

e. Any other termination of the insurance will be effective only upon written notice and only after the expiration of 30 days after a copy of such written notice is received by the Commissioner of Conservation.

I hereby certify that the wording of this instrument is identical to the wording specified in LAC 43:XIX.511.E as such regulation was constituted on the date this certificate was issued, as indicated below, and that the insurer is licensed to transact the business of insurance, or eligible to provide insurance as an excess of surplus lines insurer, in one or more states, and is authorized to conduct insurance business in the state of Louisiana.

[Signature of authorized representative of Insurer]
[Type name]
[Title], Authorized Representative of [Name of Insurer]
[Address of Representative]
DATE OF ISSUANCE:_____

F. A commercial facility or transfer station application shall contain documentation of the method by which proof of financial responsibility will be provided by the applicant. Where applicable, the application must include copies of a draft letter of credit, bond, or any other evidence of financial responsibility acceptable to the commissioner.

G. Documentation of financial responsibility must be submitted to and approved by the commissioner prior to beginning construction.

H. Financial responsibility must be renewable on April 1 of each year. Documentation that the required financial responsibility has been renewed must be received by March 15 of each year or procedures to initiate permit suspension will be initiated. If suspended, the permit shall remain suspended until insurance coverage has been confirmed.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:4 et seq.

HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation, LR 26:2819 (December 2000), amended LR 27:1902 (November 2001), LR 29:938 (June 2003), LR 34:1421 (July 2008).

§513. Provisions for Adequate Closure

A. All offsite commercial facilities and transfer stations under the jurisdiction of the Office of Conservation shall be closed in a manner approved by the commissioner to insure protection of the public, the environment, groundwater aquifers and underground sources of drinking water. A plan for closure must be developed in accordance with the requirements of the commissioner.

B. Each permitted commercial facility and transfer station shall maintain a bond or irrevocable letter of credit on file with the Office of Conservation to provide for adequate closure of the facility. The bond or letter of credit must be renewable on October 1 of each year.

C. Closure bond or letter of credit amounts will be reviewed each year prior to the renewal date according to the following process.

1. A detailed cost estimate for adequate closure of each permitted commercial facility or transfer station shall be prepared by an independent professional consultant and submitted to the commissioner on or before February 1 of each year.

2. The closure plan and cost estimate must include provisions or closure acceptable to the commissioner and must be designed to reflect the costs to the Office of Conservation to complete the approved closure of the facility.

3. Upon review of the cost estimate, the commissioner may increase, decrease or allow the amount of the bond or letter of credit to remain the same.

4. Documentation that the required closure bond or letter of credit has been renewed must be received by September 15 of each year or the commissioner shall initiate procedures to take possession of the funds guaranteed by the bond or letter of credit and suspend or revoke the permit under which the facility is operated. Any permit suspension shall remain in effect until renewal is documented.

D. The commissioner may consider the submission of other financial documents on a case-by-case basis to comply with the requirements of this Section.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:4 et seq.

HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation, LR 26:2819 (December 2000), amended LR 27:1903 (November 2001).

§515. E&P Waste Management and Operations Plan

A. All existing commercial facilities and transfer stations must maintain an E&P Waste management and operations plan (WMOP, Plan) on file with the Office of Conservation.

B. The plan must be updated as necessary or at the request of the commissioner to take into consideration any changes or modifications made at the facility.

C. The plan must describe the methods by which activities at the facility are monitored to insure compliance with the applicable requirements of this Chapter and Chapters 1, 3 and 4 of LAC 43:XIX, Subpart 1, Statewide Order No. 29-B.

D. For existing commercial facilities and transfer stations, a WMOP shall be submitted to the Office of Conservation within 180 days of promulgation of this requirement.

E. For new commercial facilities and transfer stations, a WMOP must be submitted with the application.

F. At a minimum, a WMOP shall contain the following information:

1. volume, rate of application/treatment and types of E&P Wastes to be received, stored, treated and/or disposed at each commercial facility or transfer station; a complete explanation of procedures for witnessing the receipt, sampling, and testing of E&P Wastes (E&P Waste acceptance policy) to assure that only permitted E&P Wastes are accepted, in compliance with the requirements of §545; and a detailed explanation of the storage, treatment and disposal system and related equipment to be utilized;

2. a contingency plan for reporting, responding to and cleaning up spills, leaks, and releases of E&P Wastes or treatment byproducts, including provisions for notifying applicable local, state and federal emergency response authorities and for taking operator-initiated emergency response actions;

3. a plan for routine inspection and maintenance of monitoring equipment (e.g., gauges, monitor wells, etc.) to ensure and demonstrate compliance with permit and regulatory requirements;

4. commercial land treatment facilities must provide the following information:

a. a groundwater and facility monitoring plan to comply with the applicable requirements of this Chapter;

b. specific plans for preventing or minimizing air emissions from sources such as the volatilization of organic materials (e.g., benzene) and/or hydrogen sulfide in E&P Waste, particulate matter (dust) carried by the wind, periodic removal and subsequent handling of free oil, and chemical reactions (e.g., production of hydrogen sulfide from sulfur-bearing E&P Wastes);

c. the plan shall address short-term and long-term distribution of Waste Type 06 on land treatment cells to prevent excessive 'same cell' loading of this E&P Waste Type;

d. a reuse stockpile management plan (see §565.G);

e. plans to comply with the location criteria of §507.A.3 for land treatment of E&P Waste;

5. a security plan for the facility;

6. a community relations or public information plan; and

7. an environmental, health, and safety plan which describes site sampling methods and procedures to determine the potential risks to public health, safety and welfare or the environment posed by the site. Such plan shall indicate how the facility will comply with the applicable environmental monitoring requirements of this Chapter.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:4 et seq.

HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation, LR 26:2822 (December 2000), amended LR 27:1904 (November 2001).

§517. Permit Compliance Review

A. Commercial facility and transfer station permits shall be reviewed at least once every five years to determine compliance with applicable permit requirements and conditions. Commencement of the permit review process for each commercial facility and transfer station shall proceed as authorized by the Commissioner of Conservation.

B. At the commissioner's discretion, any commercial facility or transfer station operator may be required to sample and test facility property and/or equipment for NORM and/or parameters established for "soils" in §549.E.2 to assure compliance with closure requirements of §567.A. The commercial facility or transfer station operator must

submit a report detailing the results of all onsite sampling and testing in a manner acceptable to the Commissioner of Conservation. Sampling and testing must be performed by an independent professional consultant and third-party laboratory. Testing must be performed by a DEQ certified laboratory in accordance with procedures presented in the Laboratory Manual for the Analysis of E&P Waste (Department of Natural Resources, August 9, 1998, or latest revision).

C. Upon review of the data and as deemed appropriate, administrative steps will be taken to revise or revoke permits.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:4 et seq.

HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation, LR 26:2823 (December 2000), amended LR 27:1904 (November 2001).

§519. Permit Application Requirements for Commercial Facilities

A. Application and Permit Required

1. Every person who intends to construct and operate a new offsite commercial facility or transfer station, or make a major modification to an existing commercial facility or transfer station, shall file a permit application with the Office of Conservation.

2. A major modification to an existing commercial facility or transfer station permit is one in which the facility requests approval to make significant technological changes to an existing E&P Waste treatment and/or disposal system, including the construction and operation of additional equipment or systems to treat and/or dispose of E&P Waste streams other than those previously accepted by the facility. A major modification request may include a request to expand an existing commercial facility or transfer station onto adjacent property not previously permitted for E&P Waste disposal activities.

3. Examples of minor permit modifications include, but are not limited to, requests to add additional Class II disposal wells to an existing facility, to add treatment equipment to supplement existing equipment, or to add land treatment cells within previously permitted facility boundaries. Minor permit modifications shall be approved administratively.

B. Notice of Intent

1. At least 30 days prior to filing such application, the applicant shall publish a notice of intent to apply. Such notice shall contain sufficient information to identify the following:

a. name and address of the applicant;

b. the location of the proposed facility;

c. the nature and content of the proposed E&P waste stream(s);

d. the method(s) of storage, treatment, and/or disposal to be used.

2. The notice of intent shall be published in the official state journal, the official journal of the parish in which the proposed facility will be located, and in the journal of general circulation in the area where the proposed facility is to be located, if different from the official parish journal.

3. Such notice shall be in bold-face type and not less than one-quarter page in size and shall be published on three separate days in each journal.

C. General Information. Except for the filing and hearing fees, the following general information must be provided in duplicate in each application for approval to operate a commercial facility or transfer station:

1. for a commercial Class II injection/disposal well application, the appropriate nonrefundable application fee(s), in the amount(s) required by Statewide Order No. 29-R-00/01, LAC 43:XIX.701 et seq., or successor regulations. New operators must submit Form OR-1 (Organization Report) to receive a permanent Operator Code number (no fee required);

2. a nonrefundable hearing fee in the amount required by Statewide Order No. 29-R-00/01, LAC 43:XIX.701 et seq., or successor regulations;

3. a list of names, addresses, and telephone numbers of the principal officers of the company or corporation and the names and addresses of local governing authorities;

4. to document compliance with the location criteria of §507.A.2, provide a list of the names and addresses of all property owners, residents, off-set operators and industrial facilities within one quarter-mile of the proposed facility or disposal well. Include copies of waivers required by §507.B, where applicable. Include a map drawn to scale showing the following information:

a. property boundaries of the commercial facility or transfer station;

b. the boundaries and ownership of all land adjacent to the commercial facility or transfer station;

c. the location and identification of all residential, commercial, or public buildings or hospitals within 1/4 mile of the facility property boundaries; and

d. all public water supply wells and private water supply wells within 1 mile of the proposed facility;

5. a detailed schematic diagram of the proposed facility of sufficient scale to show the placement of access roads, buildings, and unloading areas, and the location and identification of all storage tanks, barges, and other containers (including design capacities), treatment system/equipment, levees, flowlines, filters, the Class II disposal well(s), and all other equipment and operational features of the storage, treatment and/or disposal system;

6. for operators proposing the construction and operation of a Class II disposal well, complete the appropriate application form, including all required attachments. To document compliance with the location criteria of §507.A.3, the application must provide strike and

dip geologic cross sections intersecting at the location of the disposal well for which a permit is sought. These cross sections must include, at a minimum, available log control, geologic units, and lithology from the surface to the lower confining bed below the injection zone. The sections shall be on a scale sufficient to show the local geology in at least a two-mile radius from the proposed disposal well. The following information must be included on these cross-sections:

a. the base of underground sources of drinking water (USDWs);

b. the vertical and lateral limits of the proposed injection zone (reservoir);

c. the vertical and lateral limits of the upper and lower confining beds; and

d. the location of faults or other geologic structures;

7. documentation of compliance with the applicable location criteria of §507.A.5 and 6, with regard to flood zones and wetland areas;

8. a copy of the title to the property upon which the facility will be located. If a lease, option to lease or other agreement is in effect on the property, a copy of this instrument shall be included in the application;

9. a parish map of sufficient scale to identify the location of the proposed facility;

10. a topographic map showing the location of the proposed site and any highways or roads that abut or traverse the site, all water courses, flood plains, water wells, and pipelines within one mile of the site boundary;

11. as required in §515, provide a detailed E&P Waste management and operations plan that includes, but is not limited to the proposed method of operation of the facility and procedures for the receipt, storage, treatment and/or disposal of E&P Wastes;

12. documentation that the facility and/or disposal well will comply with the applicable design criteria of §509;

13. evidence of financial responsibility for any liability for damages which may be caused to any party by the escape or discharge of any material or E&P Waste from the commercial facility or transfer station, in compliance with the requirements of §511. The application shall contain documentation of the method by which proof of financial responsibility will be provided by the applicant. Where applicable, include a copy of a draft letter of credit, bond, or any other evidence of financial responsibility acceptable to the commissioner. Prior to beginning construction, final (official) documentation of financial responsibility must be submitted to and approved by the commissioner;

14. documentation that a bond or irrevocable letter of credit will be provided for adequate closure of the facility, in compliance with the requirements of §513. The application must include the following:

a. a detailed cost estimate for adequate closure of the proposed facility. The cost estimate must include a detailed description of proposed future closure procedures including, but not limited to plugging and abandonment of the disposal well(s) (if applicable), plugging of any monitor wells according to applicable state regulations, closing out any sumps, storm water retention (sediment) ponds, or land treatment cells, removing all surface equipment, and returning the environment (site) as close as possible to its original state. The closure plan and cost estimate must be prepared by an independent professional consultant, must include provisions for closure acceptable to the commissioner, and must be designed to reflect the costs to the commissioner to complete the approved closure of the facility;

b. a draft irrevocable letter of credit or bond in favor of the state of Louisiana and in a form which includes wording acceptable to the commissioner. Upon completion of the application review process, the commissioner will set the amount of the required bond or irrevocable letter of credit. The bond or letter of credit must be renewable on October 1 of each year and must be submitted to and approved by the commissioner prior to beginning construction;

15. verification that a discharge permit has been obtained from the appropriate state or federal agencies or copies of any applications submitted to such agencies. If a facility does not intend to discharge treated E&P Waste water or other water, a completed and notarized Affidavit of No Discharge, which includes wording acceptable to the commissioner, must be provided;

16. a list of all other licenses and permits needed by the applicant to conduct the proposed commercial activities. Include identification number of applications for those permits or licenses or, if issued, the identification numbers of the permits or licenses;

17. provide the names of all companies currently or formerly owned and/or operated by the applicant (company requesting a permit) and/or the principal officers of the applicant for the receipt, storage, treatment, recycling and/or disposal of E&P Waste or hazardous or nonhazardous industrial or municipal solid waste;

18. provide a list of local, state and/or federal permits currently or formerly held by the applicant and/or any of the principal officers of the applicant for the storage, treatment, recycling and/or disposal of E&P Waste or hazardous or nonhazardous industrial or municipal solid waste;

19. for each permit included on the list required in §519.C.18 above, provide a list of all environmental regulatory violations, if any, cited by applicable local, state or federal regulatory agencies, including all resulting notices of violation, compliance orders, penalty assessments, or other enforcement actions and the current compliance status of each violation. Such list shall include all violations cited within the five years immediately preceding the date of application for a commercial facility or transfer station permit;

20. the names and addresses of the official journal of the parish in which the proposed facility will be located and the journal of general circulation in the area where the proposed facility is to be located, if different from the official parish journal;

21. certification by an authorized representative of the applicant that information submitted in the application is true, accurate and complete to the best of the applicant's knowledge.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:4 et seq.

HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation, LR 26:2823 (December 2000), amended LR 27:1905 (November 2001), LR 29:938 (June 2003).

§521. Permit Application Requirements for a Transfer Station

A. The application for construction and operation of a transfer station by an existing Louisiana commercial facility permitted by the Office of Conservation shall include, but may not be limited to, the information required in §519.C.

B. The application for construction and operation of a transfer station by the operator of an out-of-state, legally permitted commercial facility shall consist of the following:

1. compliance with the notice of intent requirements of §519.B; and

2. submission of the information required in §519.C.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:4 et seq.

HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation, LR 26:2823 (December 2000), amended LR 27:1906 (November 2001).

§523. Permit Application Requirements for Land Treatment Systems

A. In addition to the information requested in §519.C above, the information required in this Section must be provided in duplicate in each application for approval of a commercial facility incorporating the use of land treatment cells.

B. A detailed description of the site considered for land treatment with relation to the following:

1. past and present land use;

2. geology/soil properties/hydrogeology;

3. drainage and flood control;

4. hydrologic balance; and

5. highest seasonal groundwater level.

C. A detailed description of the facility design including maps and drawings and a discussion of the following:

1. site layout;

2. proposed waste application technique;

3. drainage control;

4. proposed waste loading rate; and

5. expected facility life.

D. An explanation of the proposed E&P Waste management and operations plan with reference to the following topics:

1. sampling and testing of incoming waste (waste acceptance procedures);

2. method of receiving waste;

3. waste segregation;

4. application scheduling;

5. waste-soil mixing;

6. proposed land treatment cell and groundwater monitoring plan;

7. reuse stockpile management plan (see §565.G); and

8. an air emissions (odor) reduction and monitoring plan that addresses such sources as:

a. the volatilization of organic materials and/or hydrogen sulfide in the E&P Waste;

b. particulate matter (dust) carried by the wind;

c. periodic removal and subsequent handling of free oil; and

d. chemical reactions (e.g., production of hydrogen sulfide from sulfur-bearing E&P Wastes).

E. Detailed information concerning closure and post-closure activities and monitoring as follows:

1. proposed closure procedures;

2. post-closure maintenance; and

3. closure and post-closure monitoring.

F. Documentation of compliance with the location criteria of §507.A.4 and 5.

G. Documentation that the land treatment facility operation requirements of §549 can be met.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:4 et seq.

HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation, LR 26:2823 (December 2000), amended LR 27:1906 (November 2001), LR 29:938 (June 2003).

§525. Permit Application Requirements for Other Treatment and Disposal Options

A. In addition to the information requested in §519.C, the following information required in this Section must be provided in duplicate in each application for approval of a commercial facility incorporating the use of treatment and/or disposal options other than land treatment and as defined in §547.

B. A detailed description of the site with relation to the following:

1. past and present land use;

2. geology/soil properties/hydrogeology;

3. drainage and flood control;

4. hydrologic balance; and

5. highest seasonal groundwater level.

C. A detailed description of the facility design including maps and drawings and a discussion of the following:

1. site layout;

2. proposed waste application technique;

3. drainage control;

4. proposed waste treatment rates; and

5. expected facility life.

D. An explanation of the proposed E&P Waste management and operations plan with reference to the following topics:

1. sampling and testing of incoming waste (waste acceptance procedures);

2. method of receiving waste;

3. waste segregation;

4. proposed waste treatment monitoring plan;

5. reuse stockpile management plan (see §565.G); and

6. air emissions (odor) reduction and monitoring plan that addresses such sources as:

a. the volatilization of organic materials and/or hydrogen sulfide in the E&P Waste;

b. particulate matter (dust) carried by the wind;

c. periodic removal and subsequent handling of free oil; and

d. chemical reactions (e.g., production of hydrogen sulfide from sulfur-bearing E&P Wastes).

E. Detailed information concerning closure and post-closure activities and monitoring as follows:

1. proposed closure procedures;

2. post-closure maintenance; and

3. closure and post-closure monitoring.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:4 et seq.

HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation, LR 27:1907 (November 2001), amended LR 29:938 (June 2003).

§527. Permitting Procedures

A. The Office of Conservation will review a new commercial facility or transfer station application within 90 days of receipt and inform the applicant of its completeness.

B. If the application is not complete, the applicant shall be advised of additional information to be submitted for approval or the application shall be returned and the applicant will be required to resubmit the application.

C. Upon acceptance of the application as complete, the Office of Conservation shall set a time and date and secure a location for the required public hearing to be held in the affected parish.

D. The public hearing shall be fact finding in nature and not subject to the procedural requirements of the Administrative Procedure Act. All interested persons shall be allowed the opportunity to present testimony, facts, or evidence related to the application or to ask questions.

E. At least 30 days prior to the hearing, the applicant is required to file six copies of the complete application with the local governing authority of the parish in which the proposed facility is to be located to be made available for public review. Two additional copies of the complete application shall be filed in the parish library closest to the proposed facility.

F. Permit Issuance

1. The commissioner shall issue a final permit decision within 120 days of the close of the public comment period.

2. A final permit decision shall become effective on the date of issuance.

3. A permit to construct a commercial facility or transfer station (and any associated disposal well) will not be granted until a certified copy of a lease or proof of ownership of the property where the proposed facility is to be located is submitted to the Office of Conservation.

4. Approval or the granting of a permit to construct a commercial facility or transfer station (and any associated disposal well) shall be valid for a period of one year and if construction is not completed in that time, the permit shall be null and void. Requests for an extension of this one year requirement may be approved by the commissioner for extenuating circumstances only.

G. The application for construction and operation of a new or additional transfer station by an existing commercial E&P Waste treatment and/or disposal facility permitted by the Office of Conservation to operate within the state of Louisiana shall be administratively approved or denied.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:4 et seq.

HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation, LR 26:2817 (December 2000), amended LR 27:1907 (November 2001).

§529. Public Notice Requirements

A. Permit Application Public Hearing Notice

1. Upon acceptance of the application as complete, the Office of Conservation shall publish in the next available issue of the *Louisiana Register*, a notice of the filing and the location, date and time of the public hearing to be held in the affected parish. Such public hearing shall not be less than 30 days from the date of notice in the *Louisiana Register*.

2. At least 30 days prior to the scheduled public hearing, the Office of Conservation shall publish a notice of the filing of the application and the location, date and time of the hearing in the official state journal.

3. The applicant shall publish a substantially similar notice in the official journal of the affected parish and in the journal of general circulation in the area where the proposed facility is to be located, if different from the official parish journal, on three separate days at least 15 days prior to the date of the hearing. Such notice shall not be less than 1/4 page in size and printed in boldface type.

B. Applications submitted on Form UIC-2 SWD (or latest revision) for a new commercial saltwater disposal well or Form UIC-32 (or latest revision) to recomplete a Class II commercial disposal well into a new disposal zone shall be advertised once in the legal ad section of the official state journal, in the official parish journal where the facility is located and in the journal of general circulation in the area where the facility is located, if different from the official parish journal. Such notice shall contain language acceptable to the commissioner and shall allow a 15 day comment period. At their own risk, companies may initiate workover activities prior to the end of the comment period. However, the well may not be utilized for injection until the public comment period has ended, the completion report has been submitted and approved and the well has been successfully tested for mechanical integrity.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:4 et seq.

HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation, LR 27:1908 (November 2001).

§531. Permitting Conditions

A. The Office of Conservation may refuse to issue, reissue, or reinstate a commercial facility or transfer station permit or authorization to the following:

1. any individual, partnership or other entity which has been found to have violated any provision of LAC 43:XIX.Subpart 1 (Statewide Order No. 29-B) or has other violations which include, but is not limited to, failure to provide for proper closure of an oil, gas or injection well, commercial facility, transfer station and/or other oilfield site, failure to pay all fees, or failure to pay all civil penalties;

2. any individual, partnership, corporation or other entity for which a general partner, an owner of more than 25 percent ownership interest, a trustee, or other individual having direct or indirect control of the entity has held a position of ownership and/or control in another partnership, corporation or other entity which has been found to have violated any provision of LAC 43:XIX.Subpart 1 (Statewide Order No. 29-B) or has other violations which include, but is not limited to, failure to provide for proper closure of an oil, gas or injection well, commercial facility, transfer station and/or other oilfield site, failure to pay all fees, or failure to pay all civil penalties;

3. any individual, partnership, corporation or other entity for which a general partner, an owner of more than 25 percent ownership interest, a trustee, or other individual having direct or indirect control of the entity has held a position of ownership and/or control in another partnership, corporation or other entity which has been found, either contemporaneously with or discovered later, to have submitted false or intentionally misleading reports or responses to the orders of the Office of Conservation.

B. The Office of Conservation may refuse to issue, reissue, or reinstate a commercial facility or transfer station permit or authorization to an individual or entity that has committed a violation of any provision of LAC 43:XIX.Subpart 1 (Statewide Order No. 29-B) or other violations which may subject it to the penalty set forth herein if any one of the following has occurred.

1. An order finding the violation has been entered against the individual or entity and all appeals have been exhausted or the individual or entity has failed to timely and appropriately request a hearing and the individual or entity is not in compliance or on a schedule for compliance with an order.

2. The Commissioner of Conservation and the individual or entity have entered into an agreed order relating to the alleged violation and the individual or entity is not in compliance or on a schedule of compliance with an order.

C. The commissioner may deny an application for a commercial facility or transfer station based upon the regulatory compliance history of the applicant required in §519.C.17, 18 and 19.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:4 et seq.

HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation LR 27:1908 (November 2001).

§533. General Operational Requirements for Commercial Facilities and Transfer Stations

A. Commercial facilities and transfer stations shall be operated in compliance with, but not limited to, the following.

1. The area within the confines of tank retaining walls (levees) shall be kept free of debris, trash, and accumulations of oil or other materials which may constitute a fire hazard. Portable gasoline powered engines and pumps must be supervised at all times of operation and stored at least 50' from tank battery firewalls when not in use. Vent lines must be installed on all E&P Waste storage tanks and must extend outside of tank battery firewalls.

2. The area within the confines of tank retaining walls (levees) must be kept free of accumulations of E&P Waste fluids and water. Such fluids shall be properly disposed of by injection into a Class II well or discharged in accordance with the conditions of a discharge permit granted by the appropriate state agency.

3. Tank retaining walls and land treatment cell levees shall be kept free of debris, trash, or overgrowth which would constitute a fire hazard or hamper or prevent adequate inspection.

4. Land treatment cell and associated surface drainage system surfaces shall at no time have an accumulation of oil of more than 1 inch at any surface location.

5. Land treatment cell levels shall be maintained with at least 2 feet of freeboard at all times.

6. Tank retaining walls (levees) must be constructed of soils which are placed and compacted in such a manner as to produce a barrier to horizontal movement of fluids. The levees must be properly tied into the barrier along the bottom and sides of the levees. All levees must be provided with a means to prevent erosion and other degradation.

B. All facilities and systems for treatment, control, and monitoring (and related appurtenances) which are installed or used to achieve compliance with the conditions of a permit shall be properly operated and maintained at all times.

C. Inspection and entry by Office of Conservation personnel shall be allowed as prescribed in R.S. 30:4.

D. Discharges from land treatment cells, tanks, tank retaining walls and/or barges into man-made or natural drainage or directly into state waters will be allowed only after the necessary discharge permit has been obtained from the appropriate state and/or federal agencies and in accordance with the conditions of such permit.

E. A sign shall be prepared, displayed and maintained at the entry of each permitted commercial facility or transfer station. Such sign shall utilize a minimum of 1-inch lettering to state the facility name, address, phone number, and site code shall be made applicable to the activities of each facility according to the following example.

> "This E&P Waste (storage, treatment and/or disposal) facility has been approved for (temporary storage, treatment and/or disposal) of exploration and production waste only and is regulated by the Office of Conservation. Violations shall be reported to the Office of Conservation at (225) 342-5515."

F. A vertical aerial color photograph (or series of photographs) with stereoscopic coverage of each Type A land treatment facility must be obtained during the month of October every two years and provided to the Office of Conservation by November 30 of the year the photo is taken. Such photograph(s) must be taken at an original photo scale of 1" = 1000' to 1" = 500' depending on the size of the facility. Photo(s) are to be provided as prints in either 8" x 10" or 9" x 9" formats. The commissioner may require more frequent aerial photos as deemed necessary.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:4 et seq.

HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation, LR 27:1909 (November 2001).

§535. Notification Requirements

A. Any change in the principal officers, management, or ownership of an approved commercial facility or transfer station must be reported to the commissioner in writing within 10 days of the change.

B. Transfer of Ownership

1. A commercial facility or transfer station permit may be transferred to a new owner or operator only upon approval by the commissioner. The new owner or operator must apply for and receive an operator code by submitting a completed Form OR-1 (or latest revision) to the Office of Conservation.

2. The current permittee shall submit an application for transfer at least 30 days before the proposed transfer date. The application shall contain the following:

a. name and address of the proposed new owner (permittee);

b. date of proposed transfer; and

c. a written agreement between the existing and new permittees containing a specific date for transfer of permit responsibility, financial responsibility, and liability between them.

3. If no agreement described in §535.B.2.c above is provided, responsibility for compliance with the terms and conditions of the permit and liability for any violation will shift from the existing permittee to the new permittee on the date the transfer is approved.

C. Commercial facility and transfer station operators shall give written notice to the commissioner of any planned physical or operational alterations or additions to a permitted facility or proposed changes in the E&P Waste management plan. Requests to make such changes must be submitted to and approved by the commissioner prior to beginning construction or accomplishing the change by other means.

D. The operator of a newly approved commercial facility, transfer station, and/or disposal well must notify the commissioner when construction is complete. The operator shall not commence receiving E&P Waste or injecting E&P Waste fluids until the facility has been inspected for compliance with the conditions of the permit and the disposal well has been tested for mechanical integrity.

E. An operator of a commercial facility or transfer station shall report to the commissioner any noncompliance, including but not limited to those which may endanger public health, safety or welfare or the environment, including, but not limited to, impacts to surface waters, groundwater aquifers and underground sources of drinking water, whether onsite or offsite. Such notice shall be made orally within 24 hours of the noncompliance and followed by written notification within five days explaining details and proposed methods of corrective action.

F. When a commercial facility or transfer station operator refuses to accept a load of unauthorized waste (not meeting the definition of E&P Waste), the Office of Conservation shall be notified immediately by electronic submission (facsimile) of a completed Form UIC-26 and the manifest which accompanied the shipment of unauthorized waste or otherwise provide the names of the generator and transporter of the unauthorized waste.

G. The operator of a commercial salt cavern E&P Waste storage well and facility shall provide a corrective action plan to address any unauthorized escape, discharge or release of any material, fluids, or E&P Waste from the well or facility, or part thereof. The plan shall address the cause, delineate the extent, and determine the overall effects on the environment resulting from the escape, discharge or release. The Office of Conservation shall require the operator to formulate a plan to remediate the escaped, discharged or released material, fluids or E&P Waste if the material, fluids, or E&P Waste is thought to have entered or has the possibility of entering an underground source of drinking water.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:4 et seq.

HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation, LR 27:1909 (November 2001), amended LR 29:938 (June 2003).

§537. Hours of Receiving

A. Commercial facilities and transfer stations shall be adequately manned during hours of receiving and shall receive E&P Waste by truck only between the hours of 6 a.m. and 9 p.m., Central Time, except as provided in §537.B. below.

B. The commissioner may grant approval for after hours (nighttime) receipt of E&P Waste by a commercial facility or transfer station (by truck) when an emergency condition exists which may endanger public health or safety or the environment and to minimize the potential for same. Generators shall be responsible for obtaining prior approval for nighttime disposal by calling the Office of Conservation at (225) 342-5515. When such approval has been granted, the Office of Conservation shall notify the commercial facility or transfer station which will receive the E&P Waste and may notice the state police.

C. Commercial facilities and transfer stations with barge terminals may receive E&P Waste transported by barge on a 24-hour a day basis.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:4 et seq.

HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation, LR 27:1910 (November 2001), amended LR 31:2262 (September 2005).

§539. Monitoring Requirements for Commercial Class II Injection Wells

A. Except during approved workover operations, a positive pressure of no less than 100 psi shall be maintained on the well annulus at all times. An injection volume recorder (tamper proof meter) must be installed and properly maintained on the injection line of each disposal well system. Injected volumes must be recorded monthly and the readings reported monthly on the Commercial Class II Daily Monitoring Log (Form UIC-21, or latest revision) and annually on the annual injection well report.

B. Except during approved workover operations, wells shall be equipped with pressure gauges located on the wellhead, and situated so as to monitor the pressure of the injection stream and the pressure of the annular space between the casing and the injection string.

C. The pressure gauges shall have half-inch fittings, be scaled in increments of not more than 10 psi, and be maintained in good working order at all times.

D. A daily pressure monitoring log shall be maintained by the operator of the facility and shall contain, as a minimum, the following information:

1. the date;
2. the operator's name and address;
3. the well name, number and serial number;
4. the monitored injection pressure;
5. the monitored annulus pressure;
6. whether or not the well was injecting at the time the pressures were recorded; and
7. the name or initials of the person logging the information.

E. The pressure gauges shall be read and pressures recorded in the daily log.

F. The daily log information shall be recorded on the appropriate form and submitted to the Office of Conservation within 15 days of the end of each month.

G. Any discrepancies in the monitored pressures, which would indicate a lack of mechanical integrity and constitute noncompliance with applicable Sections of this Chapter, shall be reported orally to the Office of Conservation within 24 hours.

H. The commissioner may require, on a case-by-case basis, the installation of a 24-hour chart recorder to monitor injection pressures, injection rates, annulus pressure and injected volumes.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:4 et seq.

HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation, LR 27:1910 (November 2001).

§541. Sampling and Testing Requirements for Commercial Facilities with Monitor Wells

A. At the discretion of or as determined by the commissioner, monitor wells may be required to be installed at any commercial facility or transfer station.

B. Water samples from monitor wells shall be sampled by an independent professional consultant and analyzed by an independent testing laboratory. Samples shall be analyzed for pH, electrical conductivity (EC), chloride (Cl), sodium (Na), total dissolved solids (TDS), total suspended solids (TSS), total petroleum hydrocarbons (TPH-ppm), total benzene, As, Ba, Cd, Cr, Cu, Pb, Hg, Mo, Ni, Se, Ag, and Zn.

C. Water from newly constructed monitor wells on new commercial facilities shall be sampled and analyzed prior to receipt of E&P Waste by the facility to provide baseline data for the monitoring system. This data shall be submitted to

the Office of Conservation to be made part of the facility's permanent file.

D. Water from monitor wells on existing facilities shall be sampled and analyzed on a quarterly basis, with a copy of the analysis submitted to the Office of Conservation within 15 days of the end of each quarter.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:4 et seq.

HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation, LR 27:1910 (November 2001).

§543. Receipt, Sampling and Testing of Exploration and Production Waste

A. Only E&P Waste (as defined in §501) from approved generators of record may be received at commercial facilities and transfer stations. Other generators of E&P Waste must receive written approval of the Office of Conservation in order to dispose of approved E&P Waste at a commercial facility or transfer station.

B. For screening purposes and before offloading at a commercial facility or transfer station, each load of E&P Waste shall be sampled and analyzed (by facility personnel) for the following parameters:

1. pH, electrical conductivity, chloride (Cl) content;

2. NORM, as required by applicable DEQ regulations and requirements.

C. The commercial facility or transfer station operator shall enter the pH, electrical conductivity, and chloride (Cl) content on the manifest (Form UIC-28, or latest revision) which accompanies each load of E&P Waste.

D. An 8-ounce sample (minimum) of each load must be collected and labeled with the date, operator and manifest number. Each sample shall be retained for a period of 30 days.

E. Records of these tests performed pursuant to the requirements of this Section shall be kept on file at each facility for a period of three years and be available for review by the commissioner or his designated representative.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:4 et seq.

HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation LR 27:1911 (November 2001).

§545. Manifest System

A. In order to adequately monitor the movement and disposal of E&P Waste, every shipment of E&P Waste transported to a commercial facility or transfer station shall be accompanied by a manifest entitled "E&P Waste Shipping Control Ticket." It is expressly forbidden to transport or accept E&P Waste without a properly completed manifest form.

B. For companies who do not possess an Office of Conservation operator code number, Form UIC-23 (or latest revision) must be approved prior to transporting E&P Waste (including Waste Type 99) to a commercial facility or transfer station.

C. For those generators who do possess an operator code number, authorization must be obtained prior to transporting Waste Type 99 to a commercial facility or transfer station.

D. At the time of transport, the generator shall initiate the manifest by completing and signing Part I. After the transporter completes and signs Part II, the generator shall retain Generator Copy No. 1 (green) for his files. All other copies shall accompany the E&P Waste shipment.

E. Upon delivery of the E&P Waste, the commercial facility or transfer station shall complete and sign Part III of the manifest. The transporter shall then retain the transporter's copy (pink) for his files.

F. Upon completion of the manifest, the commercial facility or transfer station operator shall mail Generator Copy No. 2 to the generator.

G. The original manifest for each load of E&P Waste received must be retained by the commercial facility or transfer station operator and stored in a secure and accurate filing system. In order to be available for review during site inspections, the manifests for the current months E&P Waste receipts and the prior months E&P Waste receipts must be maintained at the waste disposal facility (commercial facility or transfer station site) where the E&P Waste (and the manifest) was received (destination of the waste).

H. Original manifests must be retained for a period of not less than three years in a manner acceptable to the Commissioner of Conservation and made available for review or submitted to the Office of Conservation upon request.

I. The generator and transporter operator shall maintain file copies of completed manifests for a period of not less than three years.

J. Oil and gas, commercial facility, and transfer station operators who transport E&P Waste out-of-state to a permitted disposal facility or receive E&P Waste from out-of-state must comply with the manifest system requirements of this Section.

K. A monthly report of E&P Waste receipts shall be completed by each commercial facility, transfer station or DEQ permitted facility as defined by LAC 33:V and VII (that receives E&P Waste) on Form UIC-19, or latest revision, and submitted to the Office of Conservation within 15 days of the end of each month.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:4 et seq.

HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation, LR 27:1911 (November 2001).

§547. Commercial Exploration and Production Waste Treatment and Disposal Options

A. Commercial facilities and transfer stations may be permitted to conduct one or more of the following acceptable commercial E&P Waste treatment and disposal options.

1. Class II Injection Well. Produced salt water is required to be disposed by injection into a Class II well pursuant to the requirements of Chapter 4 of LAC 43:XIX. Other E&P Waste fluids may be injected into a Class II well upon approval of the Office of Conservation. Class II wells may be operated in conjunction with other treatment and disposal options. The requirements for permitting a Class II well are found in Chapter 4 of these regulations (LAC 43:XIX.401 et seq.).

2. Class II Well Slurry Fracture Injection. The process of mixing E&P Waste solids with fluids for subsurface injection. The solids/fluids mixture (slurry) is then pumped at or above fracture gradients into a suitably characterized subsurface reservoir. A series of fractures are created forming a sphere around the perforated interval. These fractures grow at different orientations around the wellbore and constitute the disposal domain. Slurry fracture injection can only be approved when appropriate regulations are adopted/promulgated.

3. Land Treatment. A dynamic process involving the controlled application of E&P Waste onto or into the aerobic surface soil horizon by a commercial facility, accompanied by continued monitoring and management, to alter the physical, chemical, and biological state of the E&P Waste. Site, soil, climate, and biological activity interact as a system to degrade and immobilize E&P Waste constituents thereby rendering the area suitable for the support of vegetative growth and providing for beneficial future land use or to meet the reuse criteria of §565. The requirements for permitting a land treatment system are found in §519.C and §523.

4. Phase Separation. The process of treating or pretreating oil and gas E&P Waste by physical and/or chemical methods which separate the fluid (water), solid, and oily fractions. Such process can be accomplished by any number of methods, including, but not limited to the use of a centrifuge, belt-press, flocculation, or other methods. The fractions are then further treated or disposed by other acceptable methods. Fluids generally are required to be disposed of into a Class II disposal well. Solids may be further treated or disposed of by one of the options listed herewith. Oil may be sent to a salvage oil reclaimer or sold to a refiner. The equipment and processes utilized in phase separation of E&P Waste must be described in detail in the permit application.

5. Thermal Desorption. The process of heating E&P Waste in an enclosed chamber under either oxidizing or non-oxidizing atmospheres at sufficient temperature and residence time to vaporize organic contaminants from contaminated surfaces and surface pores and to remove the contaminants from the heating chamber in a gaseous exhaust system. The equipment and processes utilized in thermal desorption of E&P Waste must be described in detail in the permit application. The criteria for treatment of E&P Waste by thermal desorption will be set on a case-by-case basis.

6. Cavern Disposal. The utilization of a solution-mined salt cavern for the disposal of E&P waste fluids and solids. Applicants for permits and operators of commercial E&P waste salt cavern disposal wells must comply with the requirements of this Chapter (LAC 43:XIX.501 et seq.) and the applicable requirements of Statewide Order No. 29-M-2, LAC 43:XVII, 3101 et seq. (see §555).

7. Incineration. The burning of organic E&P Waste materials. This treatment/disposal technique is used to destroy organic compounds with the reduction of the material to its mineral constituents. The equipment and processes utilized to incinerate E&P Waste must be described in detail in the permit application. The criteria for treatment of E&P Waste by incineration will be set on a case-by-case basis.

8. Solidification (Chemical Fixation). The addition of agents to convert liquid or semi-liquid E&P Waste to a solid before burial to reduce leaching of E&P Waste material and the possible migration of the E&P Waste or its constituents from the facility. The equipment and processes utilized to solidify E&P Waste must be described in detail in the permit application. The criteria for treatment of E&P Waste by solidification will be set on a case-by-case basis.

9. Stabilization (Chemical Fixation). An E&P Waste treatment process that decreases the mobility or solubility of E&P Waste constituents by means other than solidification. Examples of stabilization techniques include chemical precipitation or pH alteration to limit solubility and mixing of E&P Waste with sorbents such as fly ash to remove free liquids. The equipment and processes utilized to stabilize E&P Waste must be described in detail in the permit application. The criteria for treatment of E&P Waste by stabilization will be set on a case-by-case basis.

B. The Office of Conservation will consider new and innovative treatment and/or disposal options on a case-by-case basis. The equipment and processes utilized by technologies other than those listed above to treat or dispose of E&P Waste must be described in detail in the permit application. The criteria for treatment of E&P Waste by other technologies will be set on a case-by-case basis.

C. Produced water (Waste Type 01—saltwater) is subject to the disposal restrictions of §503.C.

D. Waste Types 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 14, 15, 16, and 99 (and associated washwater) may be treated and disposed by land treatment methods in accordance with the buffer (location) requirements of §507.A.3.

E. Waste Type 12 and wash water (Waste Type 10) generated in the cleaning of vessels containing Waste Type 12 may not be land treated unless the MPC requirements of §503.F and G and §549.C.7.a are met.

F. All E&P Waste types may be treated or disposed by Class II slurry fracture injection, phase separation, thermal desorption, cavern disposal, incineration, solidification or stabilization methods.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:4 et seq.

HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation, LR 27:1911 (November 2001), amended LR 29:938 (June 2003), LR 34:1421 (July 2008).

§549. Land Treatment Facility Requirements

A. Land treatment facilities shall be isolated from contact with public, private, or livestock water supplies, both surface and underground.

B. The siting, design, construction, operation, testing and closure of land treatment facilities shall be approved only after an application is submitted to and approved by the commissioner pursuant to the requirements of §519, §527, and §531.

C. General Requirements

1. The soil shall contain a slowly permeable horizon no less than 12 inches thick containing enough fine grained material within 3 feet of the surface to classify it as CL, OL, MH, CH, or OH under the Unified Soil Classification System.

2. The seasonal high water table shall be maintained throughout the facility's operational life at least 36" below the soil surface, either as a result of natural or artificial drainage.

3. Throughout the operational life of a land treatment cell, in order to end the treatment phase and re-enter the application phase, a cell must be shown to comply with the following criteria.

Parameter	Limitation
PH	6.5 - 9
EC	10 mmhos/cm
SAR	12
ESP	15 percent
TPH	3 percent (by weight)
Metals (ppm)	
Arsenic	40
Cadmium	10
Chromium	1,000
Copper	1,500
Lead	300
Molybdenum	18
Nickel	420
Mercury	10
Selenium	10
Silver	200
Zinc	2,300
Leachate Testing*	
Barium	10.0 mg/l

*The Leachate testing method for Barium is included in the *Laboratory Manual for the Analysis of E&P Waste* (Department of Natural Resources, August 9, 1988, or latest version)

4. The concentration of measured constituents in any groundwater aquifer shall at no time significantly exceed background water quality data.

5. Fluids collected in a land treatment cell underdrain system shall be monitored to provide early warning of possible migration of mobile E&P Waste constituents. The monitoring program shall be defined in the permit application or the facility E&P Waste management and operations plan.

6. An independent professional consultant and laboratory shall perform the necessary monitoring to assure adherence to the requirements of this Section.

7. E&P Waste Pretreatment and Treatment

a. Waste Type 12 which contains a concentration of total benzene equal to or less than 3198 mg/kg total benzene (MPC) may be placed on land treatment cells without pretreatment. However, in treating such E&P Waste, the commercial land treatment facility must meet the location criteria of §507.A.3.

b. Land treatment facilities which have been approved to receive Waste Type 12 which contain more than 3198 mg/kg total benzene must pretreat the E&P Waste to a concentration less than or equal to 3198 mg/kg total benzene (MPC) before placing the E&P Waste on a land treatment cell (see §505.B).

c. Waste Type 06 which has been tested and found to contain a total benzene concentration less than or equal to 113 mg/kg (MPC) may be land treated no closer than 1,000' from a residential or public building, church, school, or hospital.

d. Waste Type 06 which has not been tested or tested and found to contain a total benzene concentration greater than 113 mg/kg (MPC) must be land treated no closer than 2,000' from a residential or public building, church, school, or hospital.

e. Free/visible oil must be removed from all E&P Waste prior to loading on a land treatment cell.

f. Produced saltwater and gas plant waste fluids, must not be disposed of by land treatment. If pretreated prior to disposal (e.g., filtered or otherwise phase separated) fluids must be injected into a Class II well.

8. Application Phase

a. E&P Waste may be applied to active land treatment cells during the application phase only. An application phase begins only under the following conditions:

i. a new constructed and approved cell begins receipt of E&P Waste;

ii. a cell containing treated E&P Waste has been shown to meet the testing criteria of §549.C and is utilized for the application of new E&P Waste receipts;

iii. a cell from which treated E&P Waste has been removed (after meeting the reuse testing criteria of §565) is utilized for the application of new E&P Waste receipts.

b. An application phase ends when either one of the following occurs:

i. three months have elapsed since the date application first began, unless an exception is granted upon proof of good cause under the provisions of §569; or

ii. 15,000 bbls/acre of E&P Waste has been applied to a cell.